

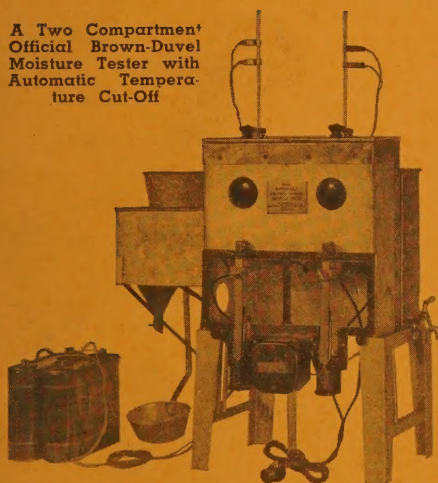
GRAIN & FEED JOURNALS

CONSOLIDATED

A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter

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Moisture Tester with
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Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

HAVING YOUR name in this directory will introduce you to many old and new firms during the year, whom you do not know or could not meet in any other way. Many new concerns are looking for connections, seeking an outlet or an inlet, possibly in your territory. It is certain that they turn to this recognized Directory, and act upon the suggestions it gives them. The cost is only \$10 per year.

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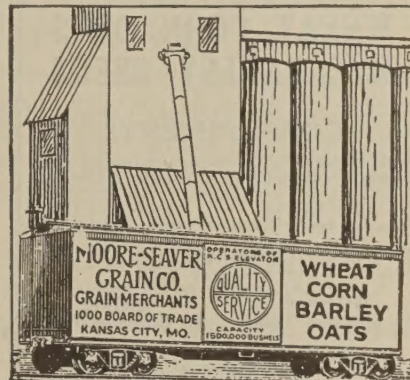
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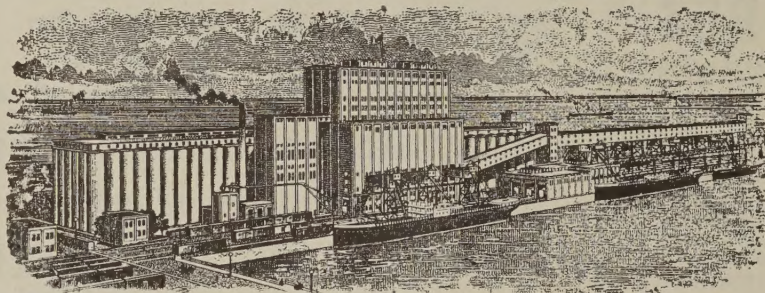
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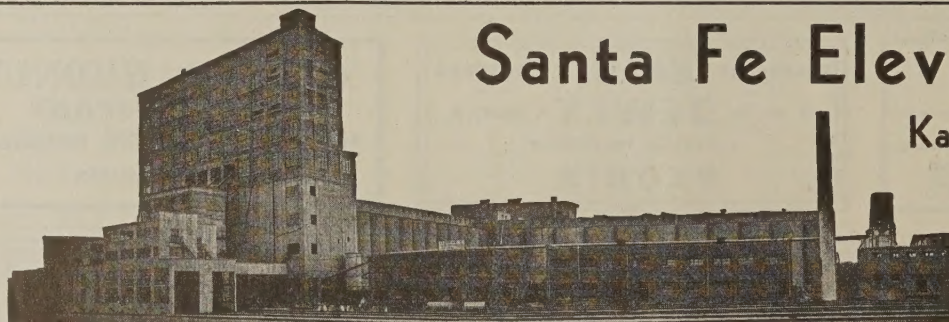
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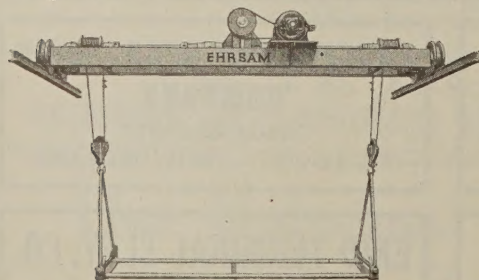
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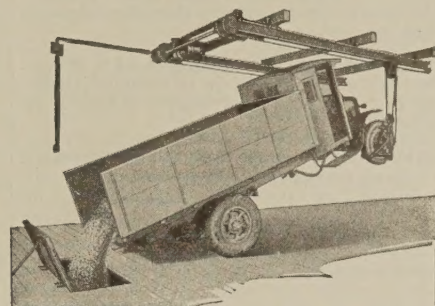
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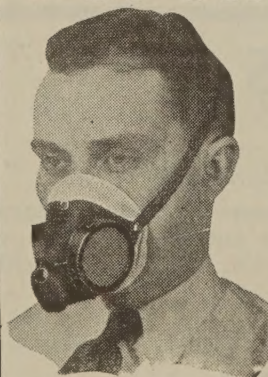
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Whenever there is a real opportunity of interest in the grain trade, it is usually registered in the "Wanted—For Sale" columns of the Journal.

SO. MINN.—One-third interest in farmers elevator and wholesale grocery business for sale on account of illness; splendid business in good grain territory. Write for information to A. L. Schaumkessel, Waseca, Minn.

SOUTHWESTERN OHIO—25,000 bushel metal sided elevator for sale; own siding and ground; wish to devote entire time to feed business; would expect to buy all ground grains from purchaser of this plant. Write Mineralized Yeast Mills, Ingomar, Ohio.

On the other end of the Journal's "Wanted—For Sale" columns you will find 9,000 grain dealers anxious to know what you have for them.

MINNESOTA—125,000 bus. iron clad frame cleaning and transfer elevator for sale, electric power, fast handling, good cleaner equipment, Northwestern road, a good transit point, and in good barley territory. Real bargain price. Banner Grain Co., Minneapolis, Minn.

BARGAIN IF TAKEN AT ONCE—Some one is always looking for an elevator at a good grain point and reads these ads just like you're doing now, so if you wish to dispose of your present property, enlarge your present interests, or embark in the grain business, USE these columns to your best advantage just as others are doing. WE WILL assist you in the composition of copy free. We are in business to be of service to YOU. There is no wrong time to put an ad in the columns of the Journal. TRY IT.

ELEVATORS FOR SALE

CENTRAL IOWA—30,000 bushel elevator for sale; good grain territory; also handle coal. Write 76A3 Grain & Feed Journals, Chicago, Ill.

ALMOST ANYTHING YOU WANT can be promptly obtained through JOURNAL want ads.

INDIANA—Grain elevator for sale on Penna. R.R. near Peru. Fine location; good general farming terr. For information write A. P. Flynn, Receiver, 1st National Bank, Peru, Ind.

ELEVATORS WANTED

IF YOU DO NOT find the elevator you want advertised, place your wants in the "Elevators Wanted" section and you will receive full particulars regarding many desirable properties not yet advertised.

MILLS FOR SALE

MICHIGAN—Flour and feed mill for sale, located in productive mid-west territory. In good operating condition and doing a nice retail coal and feed business. Address P. O. Box 217, Lake Odessa, Michigan.

BUSINESS OPPORTUNITIES

WHATEVER your business may be, it will find a ready market if advertised in the "Business Opportunities" columns of GRAIN & FEED JOURNALS, Chicago. 9,800 grain men look to these columns twice each month for real opportunities.

SITUATION WANTED

MANAGER POSITION wanted with farmers elevator co.; 17 years' experience; all sidelines; can start at once; best of references. 75V1, Grain & Feed Journals, Chicago, Ill.

WANT ADS WORK WONDERS

They sell elevators, find help and partners, secure machines and engines which you want, sell those for which you have no further use, and perform a myriad of kindred services for shrewd people who use them regularly. READ and USE THEM.

SAMPLE ENVELOPES

SAMPLE ENVELOPES—SPEAR SAFETY—for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable; size 4½x7 inches. Have limited supply to sell at \$2.35 per hundred or 500, \$10.00 plus postage. Sample mailed on request. Grain & Feed Journals, 332 S. La Salle St., Chicago, Ill.

HELP WANTED

MEN WANTED—Feed mill machinery salesmen. 74J6 Grain & Feed Journals, Chicago, Ill.

COMPETENT AND EXPERIENCED elevator managers, foremen, bookkeepers, auditors, second men and solicitors can easily and quickly be found through an ad in the "Help Wanted" column of the Grain and Feed Journals, Consolidated, Chicago, Ill.

POPCORN WANTED

POPCORN WANTED

Carlots or less. Send sample for bid. Mention quantity.

Prunty Seed & Grain Co., 14 S. 1st St., St. Louis, Mo.

SEEDS FOR SALE

MILLET Siberian, Early, Fortune and Hog for sale; also Black and Red Amber Caneseed. Straight or mixed cars. Reimer-Smith Grain Co., Holyoke, Colo.

WHEN YOU want field or grass seed, write us, and we will put you in communication with nearby dealers, who have what you seek. The service is free. Information Bureau, Grain & Feed Journals, 332 S. La Salle St., Chicago, Ill.

Your RADIO MARKET Record

A boon to the grain dealer who keeps a convenient, permanent record of market quotations for ready reference.

This form provides convenient spaces for hourly quotations on Wheat, Corn, Oats, Rye, and Barley. A week on a sheet, and a year's supply of sheets in a book.

Order Form CND 97-5.

Price, \$1, plus postage. Shipping Weight, 1 lb.

Grain & Feed Journals
Consolidated

332 S. La Salle St. Chicago, Ill.

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332 So. La Salle St., Chicago

A consolidation of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter.

Gentlemen:—In order to keep us posted regarding what is going on in the grain and feed trades outside our office, please send us the Grain & Feed Journals twice each month. Enclosed find Two Dollars for one year.

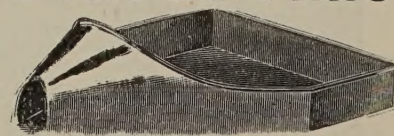
Name of Firm.....

Capacity of Elevator.....

Post Office.....

State.....

SAMPLE PANS



Made of sheet aluminum, formed by bending, reinforced around top edge with copper wire. Strong, light, durable. The dull, non-reflecting surface of the metal will not rust or tarnish; assists users to judge of the color and to detect impurities.

Grain Size, 2½ x 12 x 16½", \$2.00 at Chicago.

Seed Size, 1½ x 9 x 11", \$1.65 at Chicago.

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require little of your time for filing, and contain spaces for all the necessary information in the order which assure prompt attention on the part of the claim agent. They increase and hasten your return by helping you to prove your claims and by helping the claim agent to justify payment.

A is for Loss of Weight in Transit Claims.
B—Loss in Market Value Due to Delay in Transit.

C—Loss in Quality Due to Delay in Transit.
D—Loss in Market Value Due to Delay in Furnishing Cars.

E—Overcharge in Freight or Weight.

These claim blanks are printed on bond paper, bound in book form, each book containing 100 originals and 100 duplicates, a two-page index, instructions and summary showing just which claims have not been paid, and four sheets of carbon.

The five forms are well bound in three books, as follows:

411-A contains 100 sets all Form A. Price, \$2.00. Weight 3 lbs.

411-E contains 100 sets all Form E. Price, \$2.00.

411-5 contains 60 sets Form A, 10 Form B, 10 Form C, 10 Form D and 10 Form E. Price, \$2.00.

Grain & Feed Journals

CONSOLIDATED

332 South La Salle St. Chicago, Ill.

Cipher Codes

Universal Grain Code: Most complete, up-to-date grain code published. Effects a greater reduction in tolls than any other domestic code. 150 pages, 4½x7 inches. Price, leather, \$3.00; paper, \$1.00.

Robinson Telegraph Cipher Code: Revised with all supplements, for domestic grain business. Leather, \$2.50; cloth, \$2.00.

Dowling's Grain Code for Grain Milling and Produce Trades, 6th edition: Used extensively in Western Canada. 154 pages, 4½x6½ inches. Weight 4 ozs. Price \$3.00.

Millers Telegraphic Cipher: (1927) For the milling and flour trades. 77 pages, 3½x6 inches. Cloth bound. Price \$2.00.

Cross Telegraphic Cipher: 9th edition revised for provision and grain trades. 148 pages, 4½x5½ inches. Cloth \$3.50.

A. B. C. Improved Fifth Edition with Sup.: Reduces cable tolls 50% thru use of five-letter words, any two of which may be sent as one. In English. Price, \$20.00.

Bentley's Complete Phrase Code: Contains nearly 1,000 million combinations, any two of which can be sent as one word. Thru its use a saving of 50% can be effected in cablegrams. 8½x10½ inches. Leather back and corners. \$10.00.

Peerless Grain Code for international grain and feed trades. 300,000 different offers expressed by one half codeword combining Destination, Time of Shipment, Quantity, Quality and Price. 10,000 complete Phrases relate to Export grain trade. Private Supplement contains 3000 blank code words. Price \$85.00.

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Riverside Flour Code, Improved (5 letter revision): Sixth edition. For use in domestic and export trade. Size 6x7 inches, 304 pages. Bound in flexible leather, \$12.50.

All prices are f. o. b. Chicago.

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332 So. La Salle Street CHICAGO, ILL.

MACHINES FOR SALE

CRACKED CORN Machine for sale, has motor. Late style. 75Z3 Grain & Feed Journals, Chgo.

CORN CRUSHER—Feeder—Rebuilt for sale. Nickle Engineering Works, Saginaw, Mich.

CORN CUTTER, grader, aspirator. Used only few months; ton per hour. 75N5, Grain & Feed Journals, Chicago, Ill.

EAR CORN Crusher & Feeder for sale, also hammer mill, used less than year. Bargain. 75Z4 Grain & Feed Journals, Chicago, Ill.

FEED MIXER one ton vertical, floor level feed; has motor; latest type machine; bargain for cash. 75N4, Grain & Feed Journals, Chicago.

BARGAIN—Truck dump and scales, corn sheller, cleaner, elevator and 5-bushel Richardson automatic scale for sale. Write W. W. Pearson, West Point, Ind.

FIFTY STANDARD make used and new feed mixers, up to two ton capacity. Circular free. Priced to move. For information write 76A1, Grain & Feed Journals, Chicago, Ill.

NO NEED FOR FORMALITIES—You don't need an introduction to Journal Want-Ads. They will help you without, whatever your problems may be.

HAMMER MILL Feeder for sale. Crushes and feeds ear corn—small grain mixtures, variable flow control, tramp metal protection—our own make, factory rebuilt. Nickel Engineering, Saginaw, Mich.

NEW AND REBUILT MACHINERY

1 Corn Cracker & Grader; Corn Cutter & Grader; 1 Invincible receiving separator with tri-screen; 1-25 bbl. Midget mill; hopper & platform scales; Nos. 9 & 89 Clipper Cleaners; Nos. 3 & 6 Monitor grain & seed cleaners; Cutler & Huhn driers; 1 Vita Cereal Mill; 2 & 3 pair high 9x18 feed rolls; Roscoe oat huller; 1 New Vertical Mixer; Clark power shovel; attrition mills of various makes and sizes; hammer mills all sizes and makes; 1 Clipper Belt Lacer; 50-h.p. Bessemer full diesel engine; 1 Carter disc separator; pulleys all sizes; shaft and hangers. Write your wants. A. D. Hughes Co., Wayland, Mich.

SPECULATION GUIDE

SUCCESSFUL TRADING SYSTEMS for grains, commodities and stocks. Book covers, rules, important news, etc. Price \$2. Frank J. Turner, 334 Sherman, Chicago.

MACHINES WANTED

WAREHOUSE WHEAT separator wanted, 1-000 bu. capacity, standard make, good condition. Also 5 kilo. A.C. generator, 2 way switch. Write W. N. Butler & Co., Columbia, Tenn.

DOUBLE RUNNER attrition grinder or good hammermill wanted. Must be 50-h.p. or more. Truck scale, preferably 15 ton. Good bag closing machine; floor scale. Write 75Y9, Grain & Feed Journals, Chicago, Ill.

RUBBER BELTING FOR SALE

RUBBER BELTING remnants for sale cheap. 75Y8, Grain & Feed Journals, Chicago, Ill.

MOTORS FOR SALE

MOTORS—Stock from receiver's sale; all sizes; low prices. 74J7 Grain & Feed Journals, Chicago.

MOTORS—Complete stock guaranteed, rebuilt motors, half price. Write 75Z15 Grain & Feed Journals, Chicago, Ill.

ENGINES FOR SALE

ONE WAUKESHA 4 cylinder 80-h.p. power unit for sale. A-1 condition. Sark & Plum, Inc., Lilly Chapel, Ohio.

RAT EXTERMINATOR

RAT LUNCHES—Kills rats and mice without poison. Ready to use. Just lay them out. Endorsed by agricultural authorities. \$1 large package—\$3.50 a carton prepaid. Salesmen-Distributors wanted. Rat Lunches Co., Carroll, Ia.

SCALES FOR SALE

HOWE TRUCK SCALE for sale; 20-ton; 9'x20' platform; extra good condition; bargain. Write 75X5 Grain & Feed Journals, Chicago, Ill.

Universal Grain Code

Compiled especially for use by the Grain and Milling Trades.

Reduce your telegraph tolls. Keep your business to yourself. Prevent expensive errors.

Its 146 pages contain 13,745 code words for expressions used in the grain trade, printed on bond paper and bound in black flexible leather. Size 7x4½ inches. Price, leather, \$3.00; paper, \$1.00, f. o. b. Chicago.

GRAIN & FEED JOURNALS

Consolidated

332 S. La Salle St., Chicago, Ill.

Improved Grain Tickets

Owner		
Hauler	Grain	Grade
		Dockage
		%
Gross		
Tare		
Net		
Total Dockage		
Net Pounds		
Bushels		
Price	Amount \$	
Storage Ticket No.		
Check No.		
	Station	
No.	19	
	Weighter	
Name of Firm or Buyer		

(Illustration is one-half size of original ticket.)

Using Form 19GT as a scale book saves much time and labor as one writing with the use of carbon will give you a complete record and a ticket for the hauler.

Each of the 125 original leaves bears four scale tickets, printed on white bond, machine perforated. Each ticket is 3 inches wide by 6¾ long. The 125 duplicate leaves are printed on manila, but not perforated. Check bound at top of tickets with hinge top cover, 500 tickets in each book arranged horizontally. Each book is 7½x12 inches, supplied with 5 sheets of No. 1 carbon.

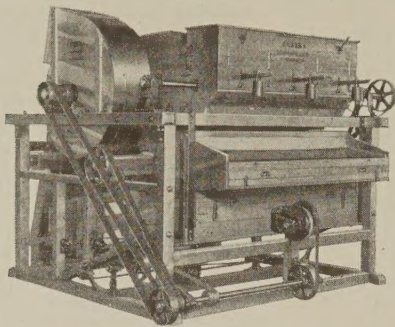
Duplicating. Weight, 2½ lbs. Order 19GT Dup. Price \$1.20, plus postage.

Triplicating is the same as 19GT Duplicating. In addition, sheets of strong white tissue are bound in between the original tickets and the duplicates so as to facilitate making three copies with one writing. Five sheets of dual-faced No. 1 carbon, 375 leaves. Weight, 3 lbs. Order 19GT Trip. Price \$1.65, plus postage.

Cash with order for twelve books earns 10% discount.

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Simplest of all cleaners —safest and cheapest—

These automatic, eccentricless, "Eurekas" are the quickest and truest responding—the most perfect performing of all grain cleaners. Fool-proof, wear-proof and the smoothest operating of all America's best in Cleaner-dom. "Eurekas" will put you right in cleaning—in every way.

S. HOWES CO., Silver Creek, N. Y.

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MODERN METHODS OF LUBRI-
CATION CUT LABOR AND OIL
COSTS AND PREVENT FIRES
AND SHUT-DOWNS FROM
HOT BEARINGS.

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ASK YOUR "MILL MUTUAL" INSURANCE
OFFICE FOR FULL PARTICULARS.

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Mutual Fire Prevention Bureau

Department of
Association of Mill and Elevator Mutual Insurance
Companies.

230 East Ohio Street
Chicago, Illinois

Grain Shipping Books

Record of Cars Shipped facilitates keeping a complete record of each car of grain shipped from any station, or to any firm. It has the following column headings: Date Sold, Date Shipped, Car Number, Initials, To Whom Sold, Destination, Grain, Grade Sold, Their Inspection, Discount, Amount Freight, Our Weight Bushels, Destination Bushels, Over, Short, Price, Amount Freight, Other Charges, Remarks. Book contains 80 double pages of ledger paper, size $9\frac{1}{2} \times 12$ inches, with spaces for recording 2,320 carloads. Well bound in heavy black pebble cloth with red keratol back and corners. Shipping weight, $2\frac{1}{4}$ lbs. Order Form 385. Price \$2.50, plus postage.

Sales, Shipments and Returns. Is designed to save time and prevent errors. The pages are used double; left hand pages are ruled for information regarding "Sales" and "Shipments"; right hand page for "Returns". Column headings provide spaces for complete records of each transaction, one line. Book contains 80 double pages of ledger paper, size $10\frac{1}{2} \times 16$ inches, with 8-page index. Spaces for recording 2,200 cars. Bound in heavy canvas with keratol corners. Weight, 3 $\frac{1}{2}$ lbs. Order Form 14AA. Price \$3.25, plus postage.

Grain Shipping Ledger for keeping a complete record of 4,000 carloads. Facing pages are given to each firm to whom you ship and account is indexed. Book contains 80 double pages of ledger paper with 16-page index, size $10\frac{1}{2} \times 15\frac{1}{2}$ inches, well bound with black cloth covers and keratol back and corners. Weight, 4 lbs. Order Form 24. Price, \$3.50, plus postage.

Shippers Record Book is designed to save labor in handling grain shipping accounts and gives a complete record of each car shipped. Its 80 double pages of ledger paper, size $9\frac{1}{2} \times 12$ inches, provide spaces for 2,320 carloads. Wide columns provide for the complete record of all important facts of each shipment. Bound in heavy black cloth with keratol back and corners. Shipping weight, $2\frac{1}{2}$ lbs. Order Form 20. Price \$2.50, plus postage.

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Grain Receiving Books

Grain Receiving Register for recording loads of grain received from farmers. It contains 200 pages of ledger paper $8\frac{1}{2} \times 13\frac{1}{2}$ inches, capacity for 8,200 loads. Some enter loads as received, others assign a page to each farmer, while others assign sections to different grains. Bound in strong board covers, canvas back. Headings of columns are: "Date, Name, Kind of Grain, Gross, Tare, Net, Bushels, Pounds, Price, Amount, Remarks." Weight, $2\frac{1}{4}$ lbs. Order Form 12AA. Price \$2.50, plus postage.

Wagon Loads Received has columns headed: "Month, Day, Name, Kind, Gross and Tare, Net Pounds, Bushels, Pounds, Price, Dollars and Cents, Remarks." Contains 200 pages of ledger paper size $9\frac{1}{2} \times 12$ inches, providing spaces for 4,000 loads. Bound in heavy boards with strong cloth covers and keratol corners and back. Weight, 2 lbs. Order Form 380. Price \$2.50, plus postage.

Receiving and Stock Book is arranged to keep each kind of grain in separate column so each day's receipts may be easily totaled. It contains 200 pages linen ledger paper size $9\frac{1}{2} \times 12$ inches, ruled for records of 4,000 loads. Well bound in black cloth and keratol back and corners. Shipping weight, $2\frac{1}{4}$ lbs. Order Form 321. Price \$2.50, plus postage.

Grain Receiving Ledger has 200 pages linen ledger paper and 28-page index, $8\frac{1}{2} \times 13\frac{1}{2}$ inches, numbered and ruled for 44 entries. Well bound in pebble cloth with keratol back and corners. Weight, 3 lbs. Order Form 43. Price, \$3.00, plus postage.

Form 43 XX contains 428 pages. Shipping weight $4\frac{1}{2}$ lbs. Price \$5.00, plus postage.

Grain Scale Book is designed to assign separate pages to each farmer and their names can be indexed so their accounts can be quickly located. It contains 252 numbered pages and 28-page index, of high grade linen ledger paper $10\frac{1}{2} \times 15\frac{1}{2}$ inches. Each page will accommodate 41 wagonloads. Well bound with heavy board covers with cloth sides and keratol back and corners. Weight, $4\frac{1}{2}$ lbs. Order Form 23. Price, \$4.00, plus postage.

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332 S. La Salle St., Chicago, Ill., U.S.A.

Charles S. Clark, Manager

A merger of
GRAIN DEALERS JOURNAL
Established 1898

AMERICAN ELEVATOR &
GRAIN TRADE
Established 1882

THE GRAIN WORLD
Established 1928

PRICE CURRENT - GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improvement of grain, feeds and seeds.

SUBSCRIPTION RATES to United States and countries within the 8th Postal Zone, semi-monthly, one year, cash with order, \$2.00; single copy current issue, 25c.

To Canada and Foreign Countries, prepaid, one year, \$3.00.

THE ADVERTISING value of the Grain & Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, ILL., JANUARY 8, 1936

THE DESIRE for a clean cupola is inducing the installation of dust control systems in many Kansas elevators.

SO MANY improved feed mixers are being installed in country elevators this side line must be proving profitable.

HI OVERBIDDER often swells his stock of grain to unusual proportions, but he also shrinks his cash in a most deplorable manner.

NO ONE has ever attempted to justify or excuse the assessing of a federal tax on sales of farm products for future delivery, yet the Government continues to collect.

VIBRATION in a hammer mill running at high speed should be investigated. If a better balance of the moving parts can be accomplished it should be done. Otherwise the result may be crystallization of the metal, weakening it to the breaking point, with disastrous consequences, as in one Kansas mill recently.

SO MUCH new corn is grading No. 5 and sample country buyers need to exercise great vigilance lest they fail to discount purchases enough to protect themselves against loss.

THE ELEVATOR with narrow driveways and small capacity scale is bound to find it more and more difficult to buy truck grain in competition with elevators having up-to-date facilities.

THE FARMER will now be able to plant anything he pleases without any restrictions, regulations, penalties or limitations by swivel chair bureaucrats, in fact, he is free to run his own business as he wishes.

ONE OHIO grain company which was visited by midnight marauders on several occasions has discovered that five young boys nine to eleven years old were the offenders. It pays to keep your place of business securely locked against visitors.

COUNTRY elevator operators are making a mistake to install or use a small scale. Improved highways enable large trucks to deliver heavier and heavier loads to the elevator insuring the wrecking of the small scale in the middle of the busy season.

FREE peanuts, candy or feeds at the country elevator once a year seems to warm the hearts of farmer patrons and increase the day's receipts. Information regarding your own experience in attracting trade would make interesting reading for other dealers.

PRICE-FIXING of coal was ordered Dec. 28 by the Bituminous Coal Commission at Washington in compliance with the wishes of Congress as expressed in the Guffey (goofy) bill. Until the Supreme Court takes a whack at the Act grain dealers handling coal as a side line can escape the odium of higher prices by charging it to the government commission.

HANDLERS of corn through driers or otherwise expecting to sell to starch factories using the customary wet process must be careful not to turn out a product with many broken kernels the extract from which gums up the evaporating equipment in the factory, increasing the cost of operation. The factory can afford to take the cracked corn only at a heavy discount.

NORTHWESTERN markets continued to receive an excessive amount of low grade grain last month as a consequence of unfavorable climatic conditions during the growing period. Responding to the commercial axiom that the more there is of anything the cheaper it is, shippers are cautioned against paying too much for light weight wheat, barley or durum. Of the wheat, 70 per cent graded No. 4 or lower.

SO MANY grain elevator fires are traceable to friction, operators owe it to their own safety to take every precaution to keep all their bearings well lubricated.

MICHIGAN farmers demanded that state legislation should be enacted to prevent short selling by operators of elevators in which growers had beans stored, overlooking the necessity of future markets in which the elevator man can hedge against beans held in his elevator.

THE inspector who grades a car of mixed grain down to the lowest grade found in the car does not care whether the man who loaded the car was a crook or just careless. His verdict is the same. The identical grain can be made to grade a number higher by thoro mixing so that the sampler's trier picks up the same mixture wherever it probes.

SORTING of corn by growers before hauling to the elevator should be encouraged by buyers who wish to protect themselves from loss by deterioration in store or while en route to market. Much of the wet corn in the western part of the corn belt this season should be left on the farm to be fed. Its inclusion with sound corn reduces the value of the whole; and there is no excuse for paying freight on water.

INVESTIGATION of some of the numerous recent elevator fires indicated the spontaneous ignition of soy beans as the direct cause. About 12 to 13 per cent is recognized as a safe moisture content for storing, but above that figure the danger is real. This year moisture content above 16 is almost the rule, and above 20 is not uncommon. One elevator operator reported beans spontaneously taking fire only three days after being put in the bin. Beans which have been harvested by combine are even more susceptible to this hazard due to the amount of foreign material usually present.

OVERLOADING the market on bulges may not be the best policy for the Canadian Wheat Board. Such a course calls for support on the declines which the Board can not be expected to give. Limiting sales any one day to a certain percentage of its holdings would permit an advance late in the day, at which higher level the Board could dispose of an additional percentage of its store the following day, thus encouraging bull speculation. It is a matter of record that the Canadian pool sold 22,878,000 bus. on July 15 and 17, 1933, on the bulge to 95 cents and altho 23,188,000 bus. were bought back July 20, 21 and 22, the excessive sales broke the market and it never recovered. Dumping at the rate of over 11,000,000 bushels per day when the stock on hand is only 69,000,000 bus. is unseemly haste. Why sell in six days a stock that took months to accumulate?

Meeting Trucker Competition

We can think of no good reason why men long established in business in any town or city experience any difficulty in meeting the competition of traveling truckers of unknown addresses. Country elevator men throughout the land have generally established a reputation for honest methods and straight forward dealings, so the average farmer or feeder would greatly prefer to deal with him. Not only has he modern facilities for weighing and handling grain, but he has been in the business long enough to have gained a knowledge of kinds and grades that enables him to judge of the quality of the grain being handled.

The truckers being unknown to the grain growers and elevator men from whom they buy their supplies of grain, and having experienced some difficulty in getting all the grain they can sell, have sprung the market three to five cents a bushel and depend upon short weights, sharp tricks and rubber checks to prevent their suffering a loss on every load transported. They have not hesitated to cheat the feeder to whom they sell, as well as the grower or elevator man from whom they buy. Notwithstanding their apparent loss on every load, they have realized enough from their dealings in grain to keep them actively disturbing the markets they serve.

It should be a comparatively easy matter for the elevator men in the surplus corn districts to keep in communication with elevator men located in feeding districts further south. By co-operating one with another and establishing a trucking service they should be able to serve the growers and the feeders near to their elevators much more efficiently and far more satisfactorily.

Country elevator operators who have installed trucking services have not only secured a firmer hold on the patronage of oldtime customers, but have easily won many new patrons and many dealers have realized a profitable return from their trucking service even though most reasonable charges have been made for the transportation.

The maintenance of a dependable service every day of the year not only facilitates the farmer's obtaining merchandise he needs, but also facilitates the marketing of his grain and that, too, without increasing his cost of getting it to town. Elevator men who undertake to transport corn to feeding sections could without much difficulty get in touch with elevator operators in the feeding districts who would arrange for its purchase and weigh it for the buyer so as to insure feeders getting what they pay for.

It is not likely that feeding sections will fail to produce enough feedstuffs for their home needs every year, although this condition has prevailed during the last three years and the truckers have

taken advantage of the situation to the great disadvantage of the elevator operators of both the producing and feeding sections. However, many elevator operators who have installed trucks have operated them profitably even tho they did not use them in long distance marketing of grain.

We feel certain that the established grain merchants of the land have sufficient standing with the producers and feeders now served in large numbers by the tricky truckers to easily gain the preference should they establish a trucking service of their own.

Good Seed Grain in Urgent Demand

New crop corn contains so much moisture and so many ears are mouldy, farmers of the Corn Belt are confronted with a puzzling problem that not only demands careful selection of seed, but also careful tests for germination. Repeated drouths during recent years have depleted the supply of old corn and the new crop is so damp and in such poor condition that little of it is fit for seed.

Dr. Porter, Chief of the Iowa State College Seed Laboratory, declares that 60 per cent of the state's 1935 corn crop is mouldy. He found that while ears appeared normal outwardly, when broken open were found to contain excessive mould. Many crop experts pronounce the seed corn situation the most difficult since 1917.

Seed oats of desirable quality also promise to be extremely scarce and so much of the spring wheat crop was shrivelled and light weight that most of it is unfit for seed. This should prompt the seed grain specialists to scout about and find seed of desirable varieties and quality that can be safely planted the coming spring. Seed grain dealers everywhere will, no doubt, be called upon for an unusual amount of tested seed. Country elevator operators with a view to helping their farmer patrons to obtain a larger crop of good grain will conduct germination tests all winter long. The more grain their patrons grow, the more grain the dealers should have to market. Elevator operators who are able to locate good grain of the '34 crop will, no

doubt, be able to find ready buyers for seed of high vitality.

Federal Control of Production Ruled Out

Technically the Jan. 6 decision of the Supreme Court applies only to the original Agricultural Adjustment Act and its cotton processing tax; but the court also stated that Congress could not by the act of 1935 legalize the illegal tax.

The principles laid down in the decision, however, are of broader application. The six justices in the majority can be depended upon to declare invalid every attempt by the central government to regulate production. Until the flour mill cases are decided, and impounded payments are released, conservative millers would like to operate on the basis that they are still subject to the burdens imposed by unconstitutional legislation. On new business on which no tax is demanded or paid it will be difficult for processors to maintain this position, in which case the spread between raw material costs and manufactured products prices must be narrowed by the amount of the tax. In other words wheat must go up or flour come down.

Processors will not have long to wait. Soon the court will rule on other questions involving the amended Act that sought to fix the tax, after which merchants and millers will be free to conduct their business without acting as tax collectors.

Cheering news comes from the Treasury Department officially that it will cease collection of processing taxes; and that A.A.A. in recognition of the invalidity of the Act has stopped sending out benefit checks, so that all farmers, whether coerced or not, will receive their benefits in the higher prices paid for crops, except where the competition of wheat from Canada and corn from Argentina makes a domestic price advance impossible.

The outcome can only be prosperity for producer and handler. Freed from arbitrary control the farmer will have more grain to sell, and the larger volume will spell prosperity for those engaged in transportation, warehousing and merchandising.

It Is Right

that every man should do what seems to him his duty, but he is not free of sin unless at the same time he is striving with an open mind to take a new and a better view of his duty.

The Price Peggers' Punishment

Several years ago the Canadian Wheat Pool, co-operating with the Federal Farm Board, attempted to boost the price of wheat to European consumers. The principal thing accomplished was the embitterment of European consumers who resented being held up for their breadstuffs and both the Pool and the Farm Board accumulated a large surplus of wheat which long exerted a most depressing influence on the price of wheat in spite of drouths and crop failures.

Last month the Argentine Government, unwilling to profit from the experience of the Canadian Wheat Pool and the Federal Farm Board, attempted to boost the price of its wheat to the great disadvantage of its regular customers. Canada's new Wheat Board which is entrusted with the sale of the burdensome stocks of wheat long since accumulated by the poolers, has quickly taken advantage of Argentine's price pegging activities and offered wheat at a reasonable figure, to the delight of many buyers. It has recently sold cargoes of its superior milling wheat to Greece, Brazil, Peru and more of its golden grain is going to Great Britain than for several years.

The Argentine may not believe it, but as usual the price pegger is sure to be severely punished for its price boosting tactics. Canada is paying dearly for the price boosting experiments of the Canadian Wheat Pool and the U. S. A. has already contributed over half a billion dollars to its experiment and the poor farmers on both sides of the International Boundary have paid many times as much for the organized attempts to boost prices on foreign consumers. Some day the politicians will be convinced that even with Government guaranties, prices cannot be pegged to unwilling buyers.

REFUSAL of the London Corn Trade Ass'n to admit to membership a company organized to carry on a brokerage business for a large flour milling company grows out of a desire to preserve the open market. Expert marketing service is needed at some time or other by owners of commodities, to give which the brokers must be permitted to earn a livelihood, just as a ship about to enter a strange harbor needs a pilot to keep it off the rocks. To support the pilots employment is compulsory.

LET the elevator man do the mixing is the sound advice from a California poultry professor published elsewhere in the Journals. Observers of farmers' attempts to do home mixing will agree with the professor that it is a dusty, disagreeable job, wastes the poultryman's time and does not give a dependable mix. Coming from a section of the country where poultry production has been developed to a science and has taken on the proportions of a big industry his advice is well worth heeding by poultrymen elsewhere.

Crop Control Unconstitutional

The entire A.A.A. was invalidated in a decision in the Hoosac Mills cotton processing tax suit, by the Supreme Court of the United States given Jan. 6.

Justice Roberts read the opinion of the majority of six. Justices Stone, Cardozo and Brandeis dissented.

In its clarity of statement of the constitutional principles controlling the executive and legislative departments of the government in respect to farm control the decision left nothing to be desired. The court made it clear that the general welfare clause of the constitution did not permit those departments to usurp powers not expressly delegated to the federal union by the states.

Following are excerpts from the decision:

Sec'y Uncontrolled.—It will be observed that the secretary is not required, but is permitted, if, in his uncontrolled judgment, the policy of the act will so be promoted, to make; agreements with individual farmers for a reduction of acreage or production upon such terms as he may think fair and reasonable.

Original A.A.A. Only Considered.—The United States presented a claim to the respondents as receivers of the Hoosac Mills Corporation for processing and floor taxes on cotton levied under sections 9 and 16 of the act. The receivers recommended that the claim be disallowed. The District court found the taxes valid and ordered them paid. Upon appeal the Circuit Court of Appeals reversed the order. The judgment under review was entered prior to the adoption of the amending act of Aug. 24, 1935, and we are therefore concerned only with the original act.

Obviously the asserted interest of a taxpayer in the federal government's funds and the supposed increase of the future burden of taxation is minute and indeterminable. But here the respondents who are called upon to pay moneys as taxes, resist the exaction as a step in an unauthorized plan.

Tax and Purpose Inseparable.—The government in substance and effect asks us to separate the agricultural adjustment act into two statutes, the one levying an excise on processors of certain commodities, the other appropriating the public moneys independently of the first. Passing the novel suggestion that two statutes enacted as parts of a single scheme should be tested as if they were distinct and unrelated, we think the legislation now before us is not susceptible of such separation and treatment.

Regulation the Aim.—Beyond cavil the sole object of the legislation is to restore the purchasing power of agricultural products to a parity with that prevailing in an earlier day; to take money from the processor and bestow it upon farmers who will reduce their acreage for the accomplishment of the proposed end, and, meanwhile, to aid these farmers during the period required to bring the prices of their crops to the desired level.

The tax plays an indispensable part in the plan of regulation. As stated by the agricultural adjustment administrator, it is "the heart of the law"; a means of "accomplishing one or both of two things intended to help farmers attain parity prices and purchasing power."

Not a Legitimate Tax.—The whole revenue from the levy is appropriated in aid of crop control; none of it is made available for general governmental use. The entire agricultural adjustment program embodied in title 1 of the act is to become inoperative when, in the judgment of the president, the national economic emergency ends; and as to any commodity, he may terminate the provisions of the law, if he finds them no longer requisite to carrying out the declared policy with respect to such commodity. (Section 13.)

It is inaccurate and misleading to speak of the exaction from processors prescribed by the challenged act as a tax, or to say that as a tax it is subject to no infirmity. A tax, in the general understanding of the term, and as used in the constitution, signifies an exaction for the support of the government.

The word has never been thought to connote the expropriation of money from one group for the benefit of another. We may concede that the latter sort of imposition is constitutional when imposed to effectuate regulation of a matter in which both groups are interested and in respect of which there is a power of legislative regulation.

But manifestly no justification for it can be found unless as an integral part of such regulation. The action cannot be wrested out of its setting, denominated an excise for raising revenue and legalized by ignoring its purpose as a mere instrumentality for bringing about a desired end. To do this would be to

shut our eyes to what all others than we can see and understand. Child labor tax case, 259 U. S. 20, 37.

Central Power Limited.—The federal union is a government of delegated powers. It has only such as are expressly conferred upon it and such as are reasonably to be implied from those granted. In this respect we differ radically from nations where all legislative power, without restriction or limitation, is vested in a parliament or other legislative body subject to no restrictions except the discretion of its members.

The law's stated purpose is the control of agricultural production, a purely local activity, in an effort to raise the prices paid the farmer.

The act invades the reserved rights of the states. It is a statutory plan to regulate and control agricultural production, a matter beyond the powers delegated to the federal government. The tax, the appropriation of the funds raised, and the direction for their disbursement, are but parts of the plan. They are but means to an unconstitutional end.

From the accepted doctrine that the United States is a government of delegated powers, it follows that those not expressly granted, or reasonably to be implied from such as are conferred, are reserved to the states or to the people. To forestall any suggestion to the contrary, the tenth amendment was adopted. The same proposition, otherwise stated, is that powers not granted are prohibited. None to regulate agricultural production is given, and therefore legislation by congress for that purpose is forbidden.

Coercion.—The government asserts that whatever might be said against the validity of the plan, if compulsory, it is constitutionally sound because the end is accomplished by voluntary co-operation.

There are two sufficient answers to the contention. The regulation is not in fact voluntary. The farmer, of course, may refuse to comply, but the price of such refusal is the loss of benefits. The amount offered is intended to be sufficient to exert pressure on him to agree to the proposed regulation. The power to confer or withhold unlimited benefits is the power to coerce or destroy.

If the cotton grower elects not to accept the benefits, he will receive less for his crops; those who receive payments will be able to undersell him. The result may well be financial ruin.

The coercive purpose and intent of the statute is not obscured by the fact that it has not been perfectly successful. It is pointed out that, because there still remained a minority whom the rental and benefit payments were insufficient to induce to surrender their independence of action, the congress has gone further and, in the Bankhead cotton act, used the taxing power in a more directly minatory fashion to compel submission. This progression only serves more fully to expose the coercive purpose of the so-called tax imposed by the present act.

It is clear that the department of agriculture has properly described the plan as one to keep a non-cooperating minority in line. This is coercion by economic pressure. The asserted power of choice is illusory.

No Power to Reduce Acreage or Control Production.—But appropriations and expenditures under contracts for proper governmental purposes cannot justify contracts which are not within federal power. And contracts for the reduction of acreage and the control of production are outside the range of that power.

An appropriation to be expended by the United States under contracts calling for violation of a state law clearly would offend the constitution. Is a statute less objectionable which authorizes expenditure of federal moneys to induce action in a field in which the United States has no power to intermeddle? The congress cannot invade state jurisdiction to compel individual action; no more can it purchase such action.

Congress has no power to enforce its commands on the farmer to the ends sought by the agricultural adjustment act. It must follow that it may not indirectly accomplish those ends by taxing and spending to purchase compliance. The constitution and the entire plan of our government negative any such use of the power to tax and to spend as the act undertakes to authorize.

It does not help to declare that local conditions throught the nation have created a situation of national concern; for this is but to say that whenever there is a widespread similarity of local conditions, congress may ignore constitutional limitations upon its own powers and usurp those reserved to the states.

Since, as we have pointed out, there was no power in the congress to impose the contested exaction, it could not lawfully ratify or confirm what an executive officer had done in that regard. Consequently the act of 1935 does not affect the rights of the parties.

The judgment is affirmed.

Asked—Answered

[Readers who fail to find trade information desired should send query for free publication here. The experience of your brother dealers is worth consulting. Replies to queries are solicited.]

Grain Carrying Capacity of Pipes?

Grain & Feed Journals: What are the capacities in bushels per hour or minute of pipes of various diameters?—L. D. Ward, Baltimore, Md.

Ans.: The capacity of pipes to carry grain is not measured by the diameter of the pipe. The capacity depends upon the force of the blast or suction of air, which, in turn depends upon the horse power of the fan or exhauster.

In the pneumatic conveying of grain it is customary to carry 2,500 to 3,000 bus. of grain per hour thru an 8-inch pipe. More air than grain passes thru the pipe. Several times as much grain can be conveyed thru the pipe by increasing the power several times, the amount of power available being the limiting factor.

If the amount of grain to be conveyed is greater it is the practice to provide additional units instead of increasing the diameter of the pipe or the power applied to the unit, a single unit usually requiring 100 h.p.

The larger the diameter of the pipe the less the damage to the grain. Suctions from one pound to 5 pounds per square inch are employed; but as the suction increases the air becomes rarified and will not carry so much grain. A change in the speed of the air current changes the carrying capacity of the pipe greatly, so it is possible to design a pneumatic system with small pipes that actually will carry the grain, but some of the grain in the excessively high speed outfit will be ground to powder.

Even the best designs use more power than the elevator belt and bucket; but where convenience of the ships being unloaded is paramount, as in European ports, the pneumatic system finds a place.

Washington, D. C.—Domestic mills ground 409,993,627 bus. of wheat during the 11 months ending with November, 1935, compared with 412,983,237 bus. in the same period of 1934.—Buro of Census.

Coming Conventions

Trade conventions are always worth while, as they afford live, progressive grain dealers a chance to meet other merchants from the same industry. You can not afford to pass up these opportunities to cultivate friendly relations and profit by the experience and study of others.

Jan. 20. Farm Seed Group of American Seed Trade Ass'n, Palmer House, Chicago, Ill.

Jan. 24. Mineral Feed Mfrs. Ass'n, Hotel Sherman, Chicago, Ill.

Jan. 30, 31. Indiana Grain Dealers Ass'n, Indianapolis, Ind.

Feb. 4, 5, 6.—North Dakota Farmers Grain Dealers Ass'n, Bismarck, N. D.

Feb. 11, 12, 13. Illinois Farmers Grain Dealers Ass'n, Chicago, Hotel LaSalle.

Feb. 18, 19, 20. Minnesota Farmers Elvtr. Ass'n, Minneapolis, West Hotel.

Feb. 21, 22. Pacific Northwest Feed Ass'n, New Washington Hotel, Seattle, Wash.

Feb. Michigan Bean Shippers Ass'n, Hotel Olds, Lansing, Mich.

Apr. 22, 23. Western Grain & Feed Dealers Ass'n, Sioux City, Ia.

June 1, 2. Pacific States Seedsmen's Ass'n, Hotel Del Monte, Del Monte, Cal.

June 8, 9. Central Retail Feed Ass'n, Schroeder Hotel, Milwaukee, Wis.

June 22, 23. Ohio Grain, Mill & Feed Dealers Ass'n, Cedar Point, O.

Oct. 12, 13. Grain and Feed Dealers National Ass'n at Hotel Schroeder, Milwaukee, Wis.

Change in Corn Sieves Sought

A recent meeting of grain and elevator interests in Chicago seeks to have grain inspectors use a 10/64ths sieve instead of the present 12/64ths in inspecting corn.

The question has been referred to Lew Hill, chairman of the Uniform Grades Com'te of the Grain & Feed Dealers National Ass'n, and to domestic grain exchanges for action.

In an official statement the Chicago meeting declared:

"The merchandisers of corn in terminal markets are experiencing difficulty in making the grades due to the size of the corn sieve used under the United States Grain Standards Act for the purpose of determining the foreign material and cracked corn. The sieve now in use is 12/64ths, which permits large broken kernels to pass thru with the meal and foreign material substance present, and is unduly penalizing the corn.

"This difficulty was brought about primarily due to a change in the method of determining the foreign material and cracked corn by the government about 1925 or 1926, at which time the government elected to use what is known as the Emerson dockage machine, whereby a riddle was made which was supposed to approximate the hand operation which was in use at that time. Due to the mechanical operation a larger percent of broken kernels passed through the sieve, resulting in more stringent grading of corn for foreign material and cracked corn.

"We hereby recommend that the corn sieve be changed to a 10/64ths which would produce approximately the same results that were obtained before the government resorted to the mechanical operation of removing foreign material and cracked corn. This would in no wise add to the hazard of keeping corn, for the reasons that the character of foreign material and meal that is produced in the drying and handling of corn will pass through the 10/64ths sieve and properly be reflected in the grading.

"We further recommend that consideration be given to separating in the abridged standards foreign material and cracked corn. The present grading and certificating of corn is misleading.

"It is agreed by the inspectors and the grain trade that the foreign material present is an exceedingly small per cent. The greater portion of what is termed under the abridged standards of foreign material and cracked corn is comprised of corn, a small per cent being in the form of meal and the greater per cent being broken kernels. Therefore, the certificate does not convey to the buyer and seller the actual quality of the corn due to the method of labeling this factor by the government."

An order restraining the collection of wheat processing taxes was recently denied the Preston-Shaffer Milling Co., of Waitsburg, Wash., by Judge Cushman.—F. K. H.

Relief Distribution of farm products by the new Federal Surplus Commodity Corporation is not permissible under the law Sec'y Wallace was informed Dec. 26 by Comptroller-General McCarl, if such surplus products are purchased with 30 per cent of customs receipts set aside to encourage exports and domestic consumption.

W. B. Lathrop New Pres. at Kansas City

W. B. Lathrop was elected pres. of the Kansas City Board of Trade in the voting on Jan. 7. He has been a member of the body for the last 25 years.

In 1907 Mr. Lathrop formed the Peirson-Lathrop Grain Co. in company with A. R. Peirson. With W. W. Marshall he organized the Lathrop-Marshall Grain Co. in 1923, which took an active interest in elevator operation. This company owns the Rosedale Elevator, and also operates the Frisco Elevator.

Mr. Lathrop is expected to oppose vigorously political activities which have so disrupted the grain business in the last few years. In stating his views he said:

"Instead of being compelled to import more than 100 million bushels of grain into the United States in a year, we should encourage production and care generously for our own needs with sufficient reserve to insure price stability and a moderate surplus for recovering our lost world markets, without which agricultural production cannot be fully profitable.

"Instead of encouraging 60 nations to erect retaliatory and prohibitive tariff walls against our farm products, we should launch a sensible program for removing these obstacles to our valuable trade outlets abroad.

"Instead of increasing government regulation of business with its resultant destruction of confidence, less trade volume, lower prices, unemployment, etc., American industry as a whole should protest against such political hamstringing and demand that resource of government be exerted in bringing about unhampered and unrestricted trade at home and abroad."



W. B. Lathrop, Pres.-Elect Kansas City Board of Trade.

Letters from the Trade

[The grain dealers' forum for the discussion of grain trade problems, practices and needed reforms or improvements. When you have anything to say of interest to members of the grain trade, send it to the Journals for publication.]

Draft Remittances Delayed 3 to 10 Days

Grain & Feed Journals: For the past several weeks I have been compiling information concerning exchange charges on drafts and am trying to secure the support of the Texas Bankers Ass'n in obtaining fair charges on draft collections.

Some of our Texas banks make a practice of withholding remittances 3 to 10 days after drafts are paid and the cars unloaded, which is another disturbing practice that should be corrected.

Some of the Texas banks go even further and try to collect charges on checks. I have been contemplating taking this matter up with the Controller of the Currency.

Here are a few items that have come to my attention which were charged by the collecting bank in addition to the exchange of 1/8th of 1% which was allowed the Ft. Worth bank when deposit was made. I cannot understand why the exchange charged the bank at Ft. Worth should not be sufficient to pay all costs of collecting the item. Draft on Sugarland, Tex., of \$1,290 costs \$1.95 exchange; \$4,297.50 to New Braunfels cost \$5.28. and \$1,401 to same town cost \$4.11; \$1,359.85 to Seguin, Tex., cost \$1.70; \$930 to Rotan cost \$1. Looks like we're working for the bankers.—Geo. E. Blewett, Sec'y, Texas Grain & Feed Dealers Ass'n, Ft. Worth, Tex.

Guffey Coal Act Unconstitutional

Judge Albert L. Reeves in the federal district court at Kansas City, Mo., Dec. 21, granted injunctions to six coal companies restraining enforcement of the Guffey Coal Act, the new little N. R. A. for the coal industry.

Judge Reeves said: "The tax is so burdensome and onerous as to destroy the business" of the petitioning coal companies and that while it was within the power of Congress to destroy by imposing a destructive tax, "yet, in this instance the act provides for a 'drawback' of 90 per cent of the tax if the producer will accept and subject himself to the regulatory provision of a code.

"In this case the regulation of coal mining is not an incidental motive to the tax, but its purpose, both as stated in the act and as stated in the answer and return of the defendants, is to regulate. The only apparent purpose of the tax is to coerce the plaintiff to submit to regulation."

Judge John P. Barnes at Chicago Jan. 3 granted a temporary injunction to the Truax-Traer Co. restraining collection of the 15% gross sales tax under the Guffey Act.

Judge Barnes said: "Mining is not interstate commerce; and while the sale of coal mined in Illinois to persons outside of the state probably would constitute interstate commerce, the mixing of such small items of interstate transactions with the mass of intrastate commerce does not warrant this legislation."

The taxing provision of the Guffey act, the judge said, imposes not a tax but a penalty and therefore he can restrain it. The general welfare clause of the constitution, according to Judge Barnes, does not authorize such specific legislation as the Guffey Act.

Price Fixing Is Goal of U. S. Dept. of Agriculture

Rexford Guy Tugwell, under-secretary of agriculture, speaking before the American Economic Ass'n at New York, said:

"The country has seen various flexible prices in recent years and certain of these phenomena were so gross in nature that roughly corrective measures were not difficult to envisage and finally, after suitable public discussion, to undertake."

Mr. Tugwell declared that "price control is a definite fact in modern society and the only question remaining is who shall control prices. Large scale management already sits on the throne manipulating the threads of price control, he said, and the only question now is, not whether these threads shall be locked away in an interference proof chamber to regulate themselves by chance, but who it shall be who sits on the throne."

Supply and demand is still in control despite this dreamers vaporings.

Agricultural Planning

Henry A. Wallace, sec'y of agriculture, in his address before the Farm Economics Ass'n at New York Dec. 30, said in part:

Some day I hope the economists can give profound consideration to the concept of balance as contrasted with the concept of price parity. As a political device and a legal device, for practical application in an emergency, the concept of parity is exceedingly useful. As an economic device, it may promote balance with respect to certain commodities. In 1933, the adoption of the parity standard was undoubtedly a desirable step toward the recognition of the concept of balance. It has in it more of the concept of balance than was then prevalent among those groups who sought only fixed industrial prices and fixed wage scales.

Nevertheless as time goes on and as parity prices are sought without regard to the necessary qualifications as to changing demand and costs of production, difficulties in the application of the full parity standard to certain commodities can easily arise. With foreign demand and industrial conditions as they were in 1935, it appeared that the parity price for hogs could be maintained only by furnishing the domestic consumer about 60 per cent as much pork as he has been in the habit of eating. The question arises, therefore, as to whether it is in the interest of the corn-belt farmer to maintain a parity price for hogs if this parity price results in such contraction of consuming demand that less than two-thirds the normal number of hogs are consumed.

It seems to me altogether unfair to hold the Secretary of Agriculture or the Federal Government responsible for bringing to pass and maintaining parity prices in the case of those products where either producing conditions or consuming demand has so greatly changed since the pre-war period that the parity price either will greatly reduce consumption below normal or will bring about such an expansion of production that the carryover stocks will, with ordinary weather, rapidly pass beyond the power of the government or any other agency to handle.

I am sure that neither the federal government nor the farmers will want to stand so very long for a parity price program for a com-

modity if it would mean the production of a subnormal quantity of food for the American public, and a reduced net income for the farmer.

Boylan Predicts a More Prosperous Season

President Robert P. Boylan of the Chicago Board of Trade described 1935 as "one of the most remarkable and unusual twelve months in the history of the grain trade of the United States," in his annual market review.

Instead of being an export nation in line with historic tradition, Mr. Boylan pointed out, "the United States has shifted its position to that of an importer of grains.

"Moreover," he continued, "for probably the first time in the history of the nation, bullish price conditions have been reflected more in the cash grain markets throughout the year than in the purchases of futures. The nation is now importing wheat from Canada and corn from Argentina, but at prices far above a level where deliveries could be made on Chicago contracts."

The Board of Trade executive gave special attention to the growth of trade in beans at Chicago. "Soy beans," he stated, "have assumed an important place in Chicago's commodity trade. Production in recent years has increased rapidly, and not only has there been a big domestic outlet for soy beans and their products, but there has been direct export business from Chicago to Europe because the quality of our beans is regarded as superior to the Manchurian."

Grain handlers and transportation agencies face a more prosperous season in 1936 than during the 1934-35 crop year, Mr. Boylan predicted. "Combined grain crops," he said, "total much more than in 1934, insuring a normally busy season. Improvement in general business conditions indicates an improved and sustained consumer demand for grain and grain products.

"These factors should be reflected in increased activities in futures contracts because of additional hedging operations for which the Chicago Board of Trade and other exchanges provide the only available facilities."

C. Gordon Smith of the Reliance Grain Co., Winnipeg, has been appointed general sales manager for the Canadian Wheat Board.



Robt. P. Boylan, Re-elected Pres. Chicago Board of Trade

Fluctuations of December Wheat, Corn and Oats

The Chicago December wheat future expired with an exciting opening Dec. 27 under pressure of covering by those who found it cheaper to buy in than deliver. The rise was not abnormal, being a readjustment upward to meet the higher level of cash wheat.

Trading in the December, 1935, future began May 2 at 99½ cents, the low for the future being made July 6 at 81 cents. Thereafter the price advanced for three months to the season's high of \$1.09½ Oct. 5 with one good reaction meantime from 97½ July 31 to 88½ Aug. 14. The best advance was made during September, as harvest returns confirmed earlier reports of crop damage, the price movement being 20 cents up from 88½ Aug. 30. The open interest in wheat on the Chicago Board increased 20,000,000 bus. during September from 106,316,000 bus. to 117,085,000, the continued increase during October in the open interest to the high of 130,858,000 bus. Nov. 6 by hedging sales finally carrying the market down to 92¾ Nov. 13. Dec. 9 the price was 94½, but on Friday, Dec. 13, the Argentine government announced its 19 cents boost in wheat guaranty, which was reflected in the advance at Chicago to \$1.03½ Dec. 14. On the last day of trading the market reacted from an opening of \$1.08 to \$1.01¾ and closed at \$1.03½ to \$1.02½.

Altho there was no trading in December wheat during the last three days of the month under the new rule of the Board of Trade forbidding transactions during the last three days of a future the open interest Dec. 28 was 116,000 bus.

The corn market had but two moderate rises during the life of the December option, one in June from 60½ June 13 to 68½ July 1, and a second rise from the season's low of 54¾ Aug. 20 to 64¾ Oct. 5. Further price advances were prevented by heavy importations of corn

from Argentina, forming a ceiling to the price structure.

The high of the year at 72½ Apr. 30 was made on the first small trade, no trade in the December future being made thereafter until May 7 when 66 cents was registered. The option expired at 56¾ to ½.

The July and August drop in the price was accompanied by a decrease in the open interest from a high of 38,457,000 June 26 to 26,727,000 bus. Sept. 6 during liquidation. For two months the price has held in the doldrums between the Argentine ceiling and the government loan bottom.

Trading in oats for December delivery began May 18 at 34¾ cents, the May 20 high of 36¾ being again approximated July 1 at 36¾, after which the prospect for a very large crop of hay and oats discouraged investment, tho the rise in wheat and corn did pull the price up from 25½ Sept. 3 to 30 cents Oct. 2 and 5. When prices were at their October high the open interest was 47,000,000 bus., and this continued to increase during the slow decline in prices and was still 43,660,000 bus. on Dec. 9 when the season's low was recorded at 24½ cents. The option dragged to a featureless expiration at 26¾.

At the low of 24½ cents oats were selling at about 14¾ cents gold, a price not reached in 70 years except during the depression of 1896.

In the chart herewith all the highs and lows have been plotted at the time during each month when they occurred, making it possible to identify the movements with those recorded in the charts of "Chicago Futures," appearing regularly in the Journals throughout the year.

The government still has 2,000,000 hides laid away as the result of its cattle slaughter. The skins are deteriorating daily while the cost of shoes and leather belting advances. The experienced bureaucrats guiding the government's hide activities know no such word as fail.

Volume of 1935 Future Trading

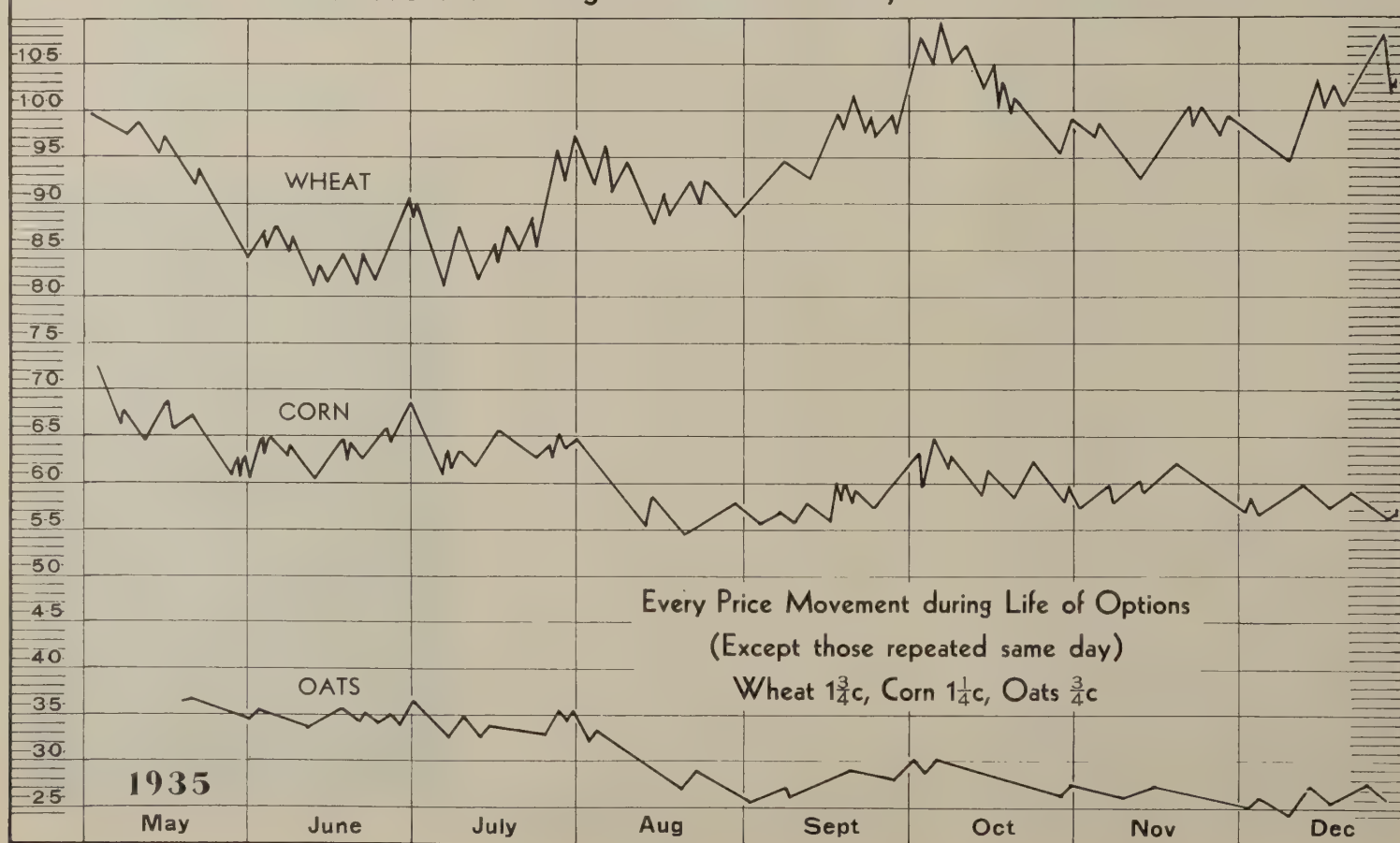
L. A. Fitz, in charge of the Chicago office of the Grain Futures Administration, reports that during 1935 the total purchases of grain futures aggregated 7,062,785,000 bus. wheat, 2,219,139,000 bus. corn, 606,799,000 bus. oats, 285,337,000 bus. rye and 1,313,000 bus. barley. In 1934 trades aggregated 7,500,397,000 bus. wheat, 3,193,210,000 bus. corn, 1,004,579,000 bus. oats, 363,074,000 bus. rye, and 23,144,000 bus. barley, on the Chicago Board of Trade.

Since the compilation of records was begun by the government the highest volume of trading in wheat was in 1925 at 18,048,505,000, and the lowest in 1931 at 6,925,200,000 bus. Corn had its maximum in 1927 at 6,328,680,000, and minimum in 1932 at 1,497,000,000 bus. Oats volume reached 2,653,688,000 in 1921, and fell to 254,359,000 bus. in 1932.

These figures may seem large; but as cash grain passes from one handler to another hedges are repeatedly taken off and put on against the same grain, resulting in a large total of transactions. Also, the Chicago futures market is the clearing house for the hedging transactions of all parts of the world.

Flour stocks held by leading jobbers are just under 60 per cent of what they were a year ago at this time. Without exception all of these jobbers stated that bakers' stocks are even lower and that their own stocks will be considerably lower by the middle of January than they are at present. While nobody expects flour stocks to be built up to the level which prevailed a few years ago, the processing tax decision may be the signal for increased milling activity for quite a time, according to the Millers National Federation. It is immaterial whether the decision is for or against the tax, increased buying will follow just the same.

Fluctuations of Chicago December Wheat, Corn and Oats 1935



The Country Grain Buyer and the Miller

By A. H. MEINERSHAGEN, Higginsville, Mo.
before the Association of Operative Millers.

Years ago mills thought it absolutely necessary in their operations to own and control large lines of country elevators. Now, there seems to be a definite move away from this trend. In many cases mill line elevators have not been satisfactorily managed. In other cases location of mill elevators was a factor against their success because certain stations did not originate the types of wheat desired for the bulk of the mill's particular flour business. The mill did not want the off-grade wheat.

For a mill to operate a line of houses it has been found more advantageous to establish organizations under separate management, entirely divorced from the mill so far as operations and merchandising are concerned. Mills found it advantageous at one time to have houses located in certain areas in order that they could secure particular tonnage. Under existing freight rate structures this, of course, has been greatly changed. It is my opinion that flour millers are just as well off not to own their elevators as far as being able to buy their wheat at an advantage for they can always go into the open market and select the type of wheat wanted and utilize their storage space in building up, exclusively, reserves of wheat meeting their requirements for the quality of flour produced.

In the matter of price and profitable operation of lines and independents, many mills continue to pursue policies of wheat buying with little regard to operating profits. During the operation of the country grain elevator code, there was a feeling in the industry that these price disturbing factors could be eliminated for they certainly could be defined as "unfair competition." For instance, in four counties of this territory, where the competition was unusually keen, dealers were urged to form an organization in an effort to overcome differences. Before this organization was formed, elevators in this four county group realized only about $\frac{1}{2}$ cent a bushel gross handling charge on their purchases and in some cases they were operating at a loss, due to the tactics employed by a few competitors.

When it is considered that at least 4 cents a bushel handling charge on wheat selling at \$1.00 is absolutely necessary and that it can be handled at this figure only where the operating expense of an elevator is at a minimum, it can readily be seen that these elevators were slowly and surely forcing each other out of business. The common understanding of essential overhead costs in the operation of elevators, which developed from a series of meetings in this group resulted in a much saner purchase basis and elevators realized about 3 cents a bushel handling charge as a consequence. This was continued for about one month and was brought to an abrupt halt by mills offering a price higher than the prevailing basis, or in fact the terminal market price for wheat delivered. Such an attractive offer induced many trucks to haul wheat from competitors territory. This is an example of many similar cases and these mills taking an unfair advantage hoped to make up losses in buying through tonnage. In many such cases mills are encouraged to bid over the market because they have flour bookings and become panicky for wheat supplies. However, they usually become satisfied with the wheat taken from the territory of their nearby elevators and when the elevators have wheat to offer the mill is not in the market.

Mills indulging in such practices are sometimes punished severely; that is, when they try such tactics on a strong line house that has sufficient capital to give them a taste of their own medicine.

Millers should deal with the country elevators of their locality if they desire local wheat, permitting the independent or line house ele-

vator to realize a handling charge over the local price for any wheat that they might turn to the mill.

Another factor in the relationship of the country elevator and the mill is that the mill is not continually in the market for grain and will not agree to take supplies from independent or line houses as they accumulate wheat. Naturally, the elevator must then look to another mill or the terminal market for its outlet. I know of cases where mills had to go to the terminal markets for supplies, the country elevator wheat being out of condition. High moisture wheat having been bought by the country elevator operator, regardless of test and moisture content results in musty wheat. Some elevators send buyers through the country without a tester. This usually results in grief.

I cannot lay too much emphasis on the up-setting influence, not only on price, but distribution and consumption, created by the trucking industry. In the country elevator industry this truck competition is driving many legitimate country dealers out of business. Why should mills patronize truckers or encourage trucking when legitimate grain dealers have any quantity of wheat desired virtually at their very door? Does the milling industry want country elevators eliminated?

A Steel Corn Crib

At Onward, Ind., Goodrich Bros. Co., Inc., has added a steel corn crib to its elevator properties.

It is built entirely of rust-proof, vermin-proof, fire-proof steel. The steel framework is tied solidly together with rigid cross-members, and to this frame is bolted 22 gauge corrugated, galvanized steel wall sheets. Roof sections are flat, but so fastened together as to shed inclement weather, and at three points on one slope are removable sections thru which the crib may be filled completely. Roof and walls, even bolts and small parts, are covered with a heavy coating of hot spelter galvanizing to insure long life.

The crib is $37\frac{1}{2}$ ft. long, 12 ft. 4 in. wide, has rounded ends and sets on a concrete foundation. The metal is corrugated horizontally, and has U-shaped louvers punched close together for aeration of the crib's contents. Two doors provide entrance.

At the top of the steel structure are four ventilators that swing to catch any available breeze and keep a constant draft passing thru the contents of the crib. The ventilator pipes extend from the roof down to the concrete floor. Only the lower parts of the pipes are perforated. This forces all air entering the pipes to pass first thru the contents of the crib. The rotating ventilator head swings to

take advantage of every breeze, and creates a strong suction that changes the air in the crib several times per minute.

In a year of soft, immature corn, this constant aeration of corn in store is a practical, inexpensive means of keeping the grain in condition until it is shelled and shipped.

This steel crib is also suitable for storing oats, and with proper lining it can be used for storing small grains. It is manufactured by the Martin Steel Products Co.

From Abroad

England has raised the duty on linseed oil from 7/10 cent to 1 cent per pound.

France will release sufficient wheat for export to leave a safety balance of 20,000,000 bus. in the country.

The Soviet government is planning the erection of a terminal elevator of 600,000 tons capacity at Saratov.

Ivan Gutman, managing director of Bunge & Co., Australian grain exporters, died recently at Melbourne, aged 57 years.

India's cotton crop is expected to be 4,479,000 bales on the acreage planted up to Dec. 1, according to the Indian Bureau of Statistics, an increase of 17.7% over the 1935 harvest.

Once again word comes from Buenos Aires, Argentina, that the Ministry of Agriculture has approved the construction of government owned terminal grain elevators with a capacity of 734,000 metric tons.

Uruguayan flaxseed sowings this year are 403,000 acres compared with 401,000 acres in 1934-35 and with the average of 370,000 acres for the five years ending with the 1933-34 crop, according to a report to the Bureau of Agricultural Economics from Agricultural Attache P. O. Nyhus in Buenos Aires.

Argentina's corn acreage is probably 10 per cent larger than the 17,368,000 acres planted in 1934-35, according to a cable received from Agricultural Attache P. O. Nyhus in Buenos Aires. The crop is in good condition thruout the entire producing area and in view of the increased acreage a record harvest is in prospect, so the feeders of the U. S. A. can obtain supplies at a reasonable price even tho the AAA succeeds in reducing the corn acreage of the U. S. A.

Malting barley receipts during August and September, 1935, at five markets totaled 2,789 cars, Minneapolis receiving 1,583 and Milwaukee 1,001. Minnesota originated 1,315 cars shipped to the different markets and Wisconsin 547, as reported by the Federal Grain Supervision.



A Steel Corn Crib in Indiana.

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds, as well as on the movement to country markets, are always welcome.

Petersburg, Ind., Dec. 31.—Many of the farmers in Pike County report they have little corn for sale at this time. A great deal of the late planted corn in Pike County last year did not mature and some of the late corn also was caught by the frost.—W.B.C.

Washington, D. C.—The popcorn report by the Bureau of Agricultural Economics issued Dec. 19, has been corrected by an issue of a later report changing the Iowa production in 1935 from 31,000,000 lbs. to 18,000,000 lbs., and the total for the three states including Nebraska and Kansas, from 47,690,000 to 34,690,000 lbs. The Bureau gives no explanation of this 13,000,000-lb. error.

Washington, D. C., Dec. 31.—Chinch bugs in dangerously large numbers, are hibernating in and around the grain fields of southeastern Iowa and west-central Illinois. Moderately dangerous numbers are in winter quarters in central and eastern Oklahoma, southeastern Kansas, central and northern Missouri, northern Illinois, and parts of Indiana and Ohio.—U. S. Dept. of Agriculture.

Pasco, Wash., Dec. 25.—The farmers of the Franklin County wheat districts are seeding winter wheat a month late on account of dry weather. Recent rains have laid the dust and the chances in favor of the wheat increased 100 per cent over a month ago. Pastures which had been so retarded by the dry fall that cattle had not sufficient green, are showing up considerably better.—F.K.H.

Conway, Kan., Jan. 2.—Temperatures have been holding steady around 32 degrees F. in this part of the country, altho we enjoyed 4 inches of snow on New Year's day, which is proving very helpful to the wheat, causing it to root down in pretty good condition. Most of the acreage has been planted to wheat, tho there is possibility that 10 to 15% of the acreage will finally go to spring crops.—F. L. Mowbray.

Portland, Ore.—Wheat, the principal crop in the state of Washington, showed gains in both production and total valuation this year over 1934. The 45,577,000-bu. wheat crop was the largest for three years and was valued at \$30,992,000, highest for a three-year period. Last year 37,346,000 bus. were valued at \$27,211,000. Other crops included hops, 10,395,000 pounds at \$1,175,000 last year and 11,340,000 pounds at \$780,000 this year.—F.K.H.

Topeka, Kan., Jan. 2.—The bulletin of the Santa Fe R. R.'s agricultural department claims that the government estimate of Kansas wheat acreage for this year's crop was low, the government estimating the fall acreage at 14,103,000 (based on returns made Dec. 1), the largest ever sown to winter wheat in the state, and claims that the total will run higher than the figures given. Farmers were found in the fields of western Kansas as late as Dec. 20 and they said they would keep on planting as long as weather permitted. The western Kansas moisture situation makes difficult the establishment of sound estimates of yields. However, crop reporters are figuring both ways from 150 million bus.

Winchester, Ind., Dec. 30.—We have been in the grip of the severest winter weather we have had in Eastern Indiana for several years. It has been a mighty fine winter so far, because we have had a deep blanket of snow that has covered our wheat and we have had enough freeze to freeze the ground down several inches. After that kind of a freeze when spring comes and corn is planted, we don't have so much trouble with cut worms and other pests. Weather has been a means of increasing our feed trade somewhat as pastures are covered with a blanket of snow. Probably 10% of our soybeans are yet in the fields. Quite some corn to husk, but it will probably stay where it is now until towards spring. Winter wheat growers are hoping that the blanket of snow that has so nicely covered their wheat fields will stay on the ground throughout January.—Goodrich Bros. Co., P. E. Goodrich, Pres.

Cobs—Shucks—Moisture—Heat—Fire

While these cobs—at least in most localities—are so wet they will not burn in a stove or in a cob burner, they are in perfect condition to heat spontaneously. The danger is perhaps not immediate, but if these wet cobs, together with the usual admixture of silks, shucks and other refuse from shelling, are placed in a bin, cob houses or other enclosure and are allowed to remain for any length of time, there is very strong probability that the mass will heat to the point of self-ignition.

The prompt removal of corn refuse from the elevator or its immediate vicinity will doubtless entail some inconvenience and perhaps some small expense, but you will do it eventually anyway. If you knew positively you would have a fire if the cobs were allowed to accumulate, you would not hesitate to dispose of present accumulations and make provision for keeping them disposed of, no matter what inconvenience or cost.

Electric Meter Not for Freshly Dried or Recently Mixed Corn

The accuracy and uniformity of grain grading on the factor "moisture" has been improved materially by the general adoption of the electric moisture meter. The two important exceptions to this generally satisfactory situation are found in the testing of newly made mixtures of wet and dry corn and of freshly kiln-dried corn. In these two cases the tests made with the electric moisture meter often are inaccurate because of the uneven distribution of moisture in the kernels of which the sample is composed.

Uneven distribution of moisture causes variations in the electric conductivity of the grain thus making it difficult to read the instrument for the average moisture content of the sample as a whole. Altho this difficulty may be overcome by placing the sample in an air-tight container for about 24 hours at room temperature until a moisture equilibrium has been reached in the sample, it does not solve the problem of providing moisture content information for such grain with the electric meter with sufficient promptness to meet all commercial requirements.

Definite instructions have been given federal grain supervisors and licensed grain inspectors by the U. S. Dept. of Agriculture, therefore, to determine the moisture content of newly made mixtures of wet and dry corn and of freshly kiln-dried corn with the Brown-Duvel device because research has shown that this tester will give reasonably accurate results on such samples.

Grain inspectors usually can recognize a sample of freshly kiln-dried corn from its general appearance and history. Samples of new mixes of wet and dry corn usually are recognizable when being tested with the electric meter if the operator observes that the needle of the microammeter is not reasonably steady (oscillating between 2 and 3 divisions) but is surging or oscillating widely and wildly (5, 10, or more scale divisions). In both of these cases grain inspectors have been instructed to employ the Brown-Duvel method for making the moisture test. Members of the trade who tender newly made mixtures of wet and dry corn or freshly kiln-dried corn for inspection can be of constructive assistance to inspectors in determining the true grade of grain, and can assure themselves of reasonably accurate moisture content information, if they will notify inspectors in such cases, whereupon the Brown-Duvel Tester will be used for determining the moisture content.

Electric Tests Accurate for High-Moisture Corn.—Altho it is more difficult to obtain an accurate moisture test of high-moisture corn (over 22 per cent) than of corn which contains normal moisture content with either the electric moisture meter or the Brown-Duvel device, the experience had with this year's corn crop indicates that the electric moisture meter when properly operated is more efficient than the Brown-Duvel Tester in obtaining accurate results for high-moisture corn, according to the Bureau of Agricultural Economics. The electric meter, however, will not give accurate results for high-moisture corn when operated with a weak battery. The maintenance of battery strength is more essential to accuracy in case of high-moisture grain than in case of low-moisture grain, and definite instructions in this feature of electric moisture meter operation have been given to federal grain supervisors and licensed inspectors.

Smut was found in one-fourth of the cars of wheat inspected during November in the Pacific Northwest. At Spokane 180 out of 862 cars were inspected smutty, at the Columbia River 319 out of 1,186, and at Puget Sound markets 289 cars out of 1,284 received. The quality is excellent, less than 10 per cent grading No. 3 or lower. Ogden, Utah, had more smutty wheat than any other point, 84 cars out of 179.

Daily Closing Prices

The daily closing prices for wheat, corn, oats, rye, barley and No. 2 yellow soybeans for May delivery at the following markets for the past two weeks have been as follows:

	Option		Dec. 26		Dec. 27		Dec. 28		Dec. 29		Jan. 2		Jan. 3		Jan. 4		Jan. 6		Jan. 7	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
Chicago	107	88½	99½	99	99½	99	100½	101½	102½	101½	102½	101½	102½	101½	102½	101½	102½	101½	102½	101½
Winnipeg	102½	85½	97	87½	97½	87½	88½	88½	90	89	88½	89	88½	89	88½	89	88½	89	88½	89
Liverpool*	96¾	80½	92½	82½	92½	82½	93½	94½	96½	94½	96½	94½	96½	94½	96½	94½	96½	94½	96½	94½
Kansas City	108½	88½	98½	98½	98½	98½	99½	100½	101½	101½	101½	101½	101½	101½	101½	101½	101½	101½	101½	101½
Minneapolis	125½	99½	108½	107½	108½	107½	108½	109½	110½	111½	111½	111½	111½	111½	111½	111½	111½	111½	111½	111½
Duluth, durum ...	105½	88½	98½	97½	98½	97½	98½	99½	100½	101½	101½	101½	101½	101½	101½	101½	101½	101½	101½	101½
Milwaukee	106¾	89½	99½	99½	99½	99½	100½	101½	102½	101½	102½	101½	102½	101½	102½	101½	102½	101½	102½	101½
Corn																				
Chicago	67½	56	59½	59½	60½	60½	60½	60½	61½	61½	61½	61½	61½	61½	61½	61½	61½	61½	61½	61½
Kansas City	62½	56½	59½	59½	60	60½	60½	60½	61½	61½	61½	61½	61½	61½	61½	61½	61½	61½	61½	61½
Milwaukee	68½	56½	59½	59½	60½	60½	60½	60½	61½	61½	61½	61½	61½	61½	61½	61½	61½	61½	61½	61½
Oats																				
Chicago	37½	26½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½
Winnipeg	35½	29½	31½	31½	32½	32½	32½	32½	32½	32½	32½	32½	32½	32½	32½	32½	32½	32½	32½	32½
Minneapolis	29½	24½	26½	26½	26½	26½	26½	26½	26½	26½	26½	26½	26½	26½	26½	26½	26½	26½	26½	26½
Milwaukee	37½	26½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½	28½
Rye																				
Chicago	59	45	52½	53½	53½	54½	55	55½	55½	55½	55½	55½	55½	55½	55½	55½	55½	55½	55½	54½
Minneapolis	59	42½	48	48	48½	49½	50	50½	50½	50½	50½	50½	50½	50½	50½	50½	50½	50½	50½	49½
Winnipeg	53	41½	45½	45½	45½	46½	46½	46½	46½	46½	46½	46½	46½	46½	46½	46½	46½	46½	46½	46½
Duluth	58½	46½	48½	49	49	50½	50½	51	51	51	51	51	51	51	51	51	51	51	51	50½
Barley																				
Minneapolis	40½	35½	38½	38½	38½	38½	38½	38½	39½	39½	39½	39½	39½	39½	39½	39½	39½	39½	39½	39
Winnipeg	42½	34½	37½	37½	37½	38½	38½	38½	39½	39½	39½	39½	39½	39½	39½	39½	39½	39½	39½	38½
Soy																				
Chicago, cash	93	91	91½	93	93	93	93	93	93	93	92	91½	91½	91½	91½	91½	91½	91½	91½	91½

*At daily current rate of exchange.

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Conway, Kan., Jan. 2.—No. corn, kafir or feed grains, except a few oats, and scarcely any wheat on farms.—F. L. Mowbray.

Williamsfield, Ill., Dec. 27.—Not much grain moving at present as farmers are not satisfied with present prices. A good many beans to harvest yet but nothing can be done now on account of heavy snow.—R. E. Lyon, mgr. Williamsfield Farmers Co-op. Co.

Omaha, Neb.—Receipts of grain at Omaha during 1935 were as follows: Wheat 16,488,680 bus., corn 7,619,910, oats 7,688,000, rye 491,400, barley 2,260,800, total 34,548,790 bus. Shipments during the year were: Wheat 9,348,193 bus., corn 10,439,512, oats 3,635,875, rye 373,513, barley 1,144,717, total 24,941,810 bus.—Omaha Grain Exchange.

Milwaukee, Wis.—Receipts of grain shipped here by boat during 1935 totaled 5,128,208 bus., against 3,978,414 in 1934, and 1,225,242 in 1933. Total shipments this year were 2,922,207 bus., compared with 3,852,115 last year and 14,062,999 bus. in 1933. Wheat to the amount of 1,677,575 bus. was shipped here this year from Buffalo, Superior and Fort William; 1,263,076 bus. of corn from Manitowoc, Buffalo, Superior, Duluth and Montreal, and 2,187,557 of barley from Buffalo, Fort William and Toronto.

Chicago, Ill., Jan. 6.—A 58-year low mark on grain receipts was established by the 1935 receipts of the Chicago market, which totaled only 84,417,000 bus., as compared with 112,884,000 bus. during the preceding year. The greatest loss of movement was in corn, reflecting the short crop of 1934, and the stiff bidding of consuming centers as prices for live stock increased. Receipts in 1935 included 21,701,000 bus. wheat, 32,970,000 bus. corn, 17,664,000 bus. oats, 5,396,000 bus. of rye, and 8,240,000 bus. barley. Receipts by water were 15,088,000 bus.; by truck, 1,384,000 bus.; by rail 67,945,000 bus. Soybean receipts of 6,450,000 bus. reflected the expansion in soybean production.

Rye Movement in December

Receipts and shipments of rye at the various markets during December, compared with December, 1934, in bushels, were:

	Receipts		Shipments	
	1935	1934	1935	1934
Baltimore	184,518	169,273	.....	.....
Boston	.....	1,100	.....	.....
Chicago	140,000	174,000	1,019,000	417,000
Indianapolis	285,000	37,500	82,500	135,000
Kansas City	12,000	4,500	3,000	1,500
Milwaukee	28,300	14,150	15,060	6,275
Minneapolis	511,560	174,240	494,700	194,700
New Orleans	.....	.....	.....	1,500
Omaha	29,400	.....	29,400	.....
Philadelphia	7,196	130,282	.....	.....
Seattle	1,500	1,500	.....	.....
Superior	135,346	6,159	.....	117,475
Toledo	14,400	1,200	3,010	.....

Oats Movement in December

Receipts and shipments of oats at the various markets during December, compared with December, 1934, in bushels, were:

	Receipts		Shipments	
	1935	1934	1935	1934
Baltimore	57,287	217,280	.....	30
Boston	30,100	18,225	.....	.....
Chicago	986,000	662,000	866,000	874,000
Ft. Worth	34,000	50,000	20,000	26,000
Indianapolis	156,000	168,000	300,000	148,000
Kansas City	126,000	250,000	170,000	60,000
Milwaukee	124,300	176,280	77,900	117,800
Minneapolis	1,172,000	389,890	2,914,560	439,480
New Orleans	15,078	1,284,325	14,517	389,838
Omaha	355,000	182,000	253,323	136,928
Philadelphia	40,732	274,585	.....	.....
Seattle	66,000	30,000	.....	.....
Superior	411,579	318,784	7,500	127,973
Toledo	666,700	502,585	536,095	383,810
Wichita	3,000	16,500	3,000	1,500

Boston, Mass.—Receipts of grain at Boston were nearly five times as large in 1935 as in 1934, figures just compiled by the Grain & Flour Exchange show. Wheat receipts in 1935 were 2,047,488 bus., against 464,290 bus. in 1934; 2,648,134 bus. corn against 132,980; 634,992 bus. oats against 494,409; 6,875 bus. rye against 10,375; 31,033 bus. barley against 29,877; 233,773 bus. malt against 128,535; 10,361 tons mill feed against 8,738 tons; 2,862 bbls. corn meal against 200; 390,570 cases and 47,890 sacks oatmeal against 374,115 cases and 35,015 sacks oatmeal.—L.V.S.

Decatur, Ill., Dec. 28.—The heavy snow has stopped the harvesting of soy beans entirely. The beans that have been moving the past few weeks have been high in moisture and are showing an increased amount of damage. Very few good beans, harvested early and binned on the farms, are being offered. With probably 10 per cent of the crop still out in the fields it now looks as though the government would have to revise their figures on the crop. The best prices of the season are being paid for the beans offered. Country movement of corn has been very light. Wagon roads have been impassable. With light receipts in all markets, spot corn has been selling to good advantage. Industries and feeders are taking what corn is offered. A little better demand this week for oats, with a good inquiry for oats suitable for seed, and they are scarce.—Baldwin Elevator Co.

Canadian Board Had 306,000,000 Bus.

Hon. J. G. Gardiner is authority for the statement that the Dominion Wheat Board took over 298,000,000 bus. from the old government supported pool and purchased 8,000,000 bus. from growers.

Mr. Gardiner is pleased to admit that the new Board sold 43,000,000 bus. in the first two weeks of its operation, and 23,000,000 bus. of this in one day.

Altho demand in Europe has been improving and altho prices at Liverpool have advanced considerably for several weeks past the management of the Board has not correspondingly raised its prices beyond the reach of foreign importers who are gratefully reciprocating with substantial daily purchases from the inexhaustible supply of the Canadian board.

Barley Movement in December

Receipts and shipments of barley at the various markets during December, compared with December, 1934, in bushels, were:

	Receipts		Shipments	
	1935	1934	1935	1934
Baltimore	11,586	7,086	.....	.....
Chicago	1,513,000	307,000	135,000	12,000
Ft. Worth	3,200	25,600	.....	3,200
Kansas City	51,200	12,800	27,200	6,400
Milwaukee	1,867,900	1,991,015	733,325	412,050
Minneapolis	1,678,270	1,866,000	1,606,620	1,092,790
New Orleans	.....	22,651	.....	.....
Omaha	222,400	20,800	169,550	1,600
Philadelphia	4,993	1,998	.....	.....
Seattle	6,400	14,400	.....	.....
Superior	230,588	160,964	185,921	347,274
Toledo	6,000	3,600	1,725	5,305

Corn Movement in December

Receipts and shipments of corn at the various markets during December, compared with December, 1934, in bushels, were:

	Receipts		Shipments	
	1935	1934	1935	1934
Baltimore	101,389	169,933	.....	.....
Boston	1,500	2,500	.....	.....
Chicago	5,641,000	2,536,000	1,524,000	1,219,000
Ft. Worth	115,500	925,500	52,500	19,500
Hutchinson	1,500	4,500	.....	.....
Indianapolis	2,533,500	1,566,000	1,529,500	880,000
Kansas City	2,232,000	1,591,500	1,071,000	1,947,000
Milwaukee	416,950	269,700	57,200	1,047,800
Minneapolis	1,055,440	183,040	934,610	961,590
New Orleans	16,419	107,407	19,563	47,621
Omaha	2,144,800	383,600	1,652,828	2,629,963
Philadelphia	303,988	304,805	.....	.....
Seattle	7,500	1,500	.....	.....
Superior	55,418	12,934	110,752	66,920
Toledo	330,000	150,000	188,025	62,175
Wichita	37,700	40,300	13,000	10,400

Much Grain in Boats

The 74 vessels tied up at Buffalo for the winter hold 20,879,123 bus. of grain in storage. The elevators at that port hold enough more to bring the total up to 43,972,807, according to the Superior Elevator & Forwarding Corporation.

Almost one-half of the grain is of Canadian origin.

The largest cargo is that in the steamer Bethlehem, 588,000 bus. of oats.

Moisture Prime Factor in Cottonseed Deterioration

D. M. Simpson reports that storage experiments with sea island and upland cottonseed under the humid conditions prevailing at James Island, S. C., demonstrated that in ordinary storage cottonseed deteriorates rapidly after 2 years. The moisture content of the seed during storage and rapidity of deterioration were definitely related.

Sea island seeds, with a moisture content reduced below 8 per cent and stored in tin containers to prevent rapid reabsorption of moisture, retained their germination percentage with but slight impairment for 4½ years.

Upland cottonseed stored under various conditions and containing from 8.75 to 13.78 per cent moisture deteriorated rapidly when the moisture remained above 10 per cent. Dried seed stored to prevent reabsorption of moisture showed only slight deterioration after 2½ years. Seed containing 13.78 per cent moisture and stored to prevent drying were all dead 9 months after storage began.

Folly of Reducing Exports

Increasing imports of crops that can as well be grown at home, or decreasing exports of crops of which we necessarily must have a surplus are governmental policies equally decried by economists.

Walter Parker, cotton trade economist of New Orleans, says:

"The last free market for United States cotton was in 1928-'29 when the world consumed 15,256,000 bales of United States cotton and 10,626,000 bales of foreign grown cotton, a total of 25,882,000 bales for the world.

"Then came the Federal Farm Board with its price pegging and market manipulations, and then the A. A. A. came into the picture.

"After five years of nostrums, market manipulation by government, crop control and above-value loans by the old Farm Board and the A. A. A., here is the record of 1934-'35:

"The world consumed 11,314,000 bales of United States cotton and 14,150,000 bales of foreign cotton, a total of 25,464,000 bales.

"In other words, as a result of economic experiment by the United States the world, in a single year, consumed 3,900,000 fewer United States bales and 3,500,000 more foreign bales than in 1928-'29."

This concrete evidence of *how* the producers' business is helped (?) by government interference is most convincing.

Wheat Movement in December

Receipts and shipments of wheat at the various markets during December, compared with December, 1934, in bushels, were:

	Receipts		Shipments	
	1935	1934	1935	1934
Baltimore	698,470	70,835	19,930	.....
Boston	1,978,168	40,000	.....	40,000
Chicago	1,122,000	1,382,000	794,000	618,000
Ft. Worth	140,000	231,000	84,000	368,200
Galveston	.....	.....	.....	18,100
Hutchinson	449,400	764,400	.....	.....
Indianapolis	111,000	102,000	185,000	266,000
Kansas City	1,836,800	1,024,000	1,801,315	1,615,080
Milwaukee	126,021	785,296	324,005	157,600
Minneapolis	3,896,860	2,229,140	1,624,150	1,380,630
New Orleans	18,078	29,198	8,325	8,400
Omaha	646,400	294,403	330,400	404,800
Philadelphia	526,455	17,324	40,000	.....
Seattle	470,400	539,000	.....	.....
Superior	476,648	141,624	660,431	653,562
Toledo	341,600	569,875	306,680	541,580
Wichita	444,000	816,000	444,000	729,000

River, Rail and Truck Serves Morris (Ill.) Elevator

A few yards inland on the north bank of the Illinois river at Morris, Ill., stands the new 70,000 bu. elevator of the Farmers National Grain Corp. It is a simple house, built of cribbing on a concrete foundation, and iron clad, designed only for handling grain quickly, and efficiently, but its location and fast handling machinery give it the advantage of utilizing whatever form of transportation is best suited to the movement of grain. Barges tie up at the piling on the river bank. A spur from the Rock Island railroad runs beside the house. A wide, high, driveway accommodates the largest of trucks for either loading or unloading.

The elevator is 37x44 ft. on the ground, with a boot pit 14 ft. deep, and 65½ ft. of cribbing to the tops of the bins. Five of the 8 hopper bottomed bins in the elevator extend from the ground level, 3 of the bins are over the driveway. To house the leg head, distributor and automatic scale, the 15x19 ft. cupola extends over 30 ft. above the bins.

The driveway is built thru one side of the elevator. It is 14 ft. wide and 20 ft. high, allowing plenty of room to get around even the largest trucks and semi-trailer outfits. In it is a 30 ton Howe recording beam, dump scale with 32x10 ft. full tilting platform, believed to be the largest in use by a grain elevator in Illinois. Under Illinois law trucks are limited to a maximum gross weight of 24,000 lbs., with a maximum of 16,000 lbs. per axle, and this size of truck platform will take any length of truck or semi-trailer that the law permits.

An unique truck dump, designed by Webster, is a part of the scale platform arrangement. Two cables, one at each side of the front end of the platform, reach a windlass at the top of the front end of the driveway. The platform is hinged at the back end. A 5 h.p. motor turns the windlass to lift the entire front end of the platform, and dump the contents of the truck by gravity thru an 8x4 ft. grate over the pit.

The dump sink is small, because the leg takes grain away faster than it can be dumped. The sink is extended to the edge of the house, and an opening is left in the concrete foundation so that a car unloading sink can easily be installed later should the need arise. A spout in the driveway can be used for loading trucks from an overhead bin, or for running grain thru the bin, back into the leg. Grain can also be run by turning the loading spout on the outside of the house to discharge in the foundation opening left for car unloading.

Grain is handled with a leg that can elevate 4,000 bus. per hour. This is fitted with Calumet buckets, and is run by a 15 h.p. motor thru a Morse silent chain to a jack shaft, and roller chain to head.

In the leg well, from the work floor to the cupola, runs a hand operated Ehram balanced manlift for convenience in reaching the top of the house.

An 8 inch spout for loading cars drops sharply from the cupola to the spur track from the Rock Island railroad. Another 8 inch spout slopes gradually to span the distance from the cupola to the river bank for loading barges. Outbound grain is weighed thru a 25 bu. Richardson automatic scale that can handle the full delivery of the fast handling leg.

A frame-work on the river bank holds the connection between the end of the long barge loading spout and its telescoping spout tip. This is fitted with windlasses for manipulation of the telescoping part of the spout.

The elevator was built by Macdonald Engineering Co. It is locally managed by F. J. Watts, formerly at Havana, Ill.

Minnesota Soybean Grades

Soybeans having become a factor in the markets on this crop the Minnesota State Board of Grain Appeals has recently established the following grades for yellow, green, brown, black and mixed soybeans:

No. 1—Shall be cool, of natural odor, well screened and of good natural color; minimum test weight per bu., 56 lbs.; moisture, 15%; splits, 1%; damage, 1.5%; foreign material, .5%, and other classes, 1%.

No. 2—Cool, of natural odor but may be slightly stained or mottled; test weight, 54 lbs.; moisture, 15%; splits, 10%; damage, 3%; foreign material, 2%, and other classes, 3%.

No. 3—Cool and of natural odor but may be stained or mottled; test weight, 52 lbs.; moisture, 16.5%; splits, 20%; damage, 5%; foreign material, 4%, and other classes, 5%.

No. 4—Cool but may be badly stained or mottled and may be slightly frosted or immature; test weight, 50 lbs.; moisture, 18%; splits, 30%; damage, 8%; foreign materials, 6%; and other classes, 5%.

Sample grade—All soybeans which do not comply with the requirements of any of the preceding grades or which have any objectionable foreign odor, or are sour, heating, hot, mouldy, infested with live weevils and other injurious insects, and are of otherwise distinctly low quality.

The maximum limits for "other classes" shall not apply to the grading or "mixed soybeans."

The Number of civilian employees of the federal administration reached its highest mark Dec. 1, at 800,079, according to the civil service commission.

Hearing on Moisture Testers

Because of the declared inability of the trade to use accurately the electric moisture tester on corn containing over 20% moisture, on kiln-dried corn, on mixtures of wet and dry grain, and on grain going out of condition, a hearing was held in Chicago recently to discuss the variation between the electric and the Brown-Duval methods of moisture determination.

Testimony divulged that on kiln dried corn, for example, the electric tester was only fairly accurate three days after the corn was dried and would be considerably off twelve days after drying.

Officials declared the water oven method of moisture determination was the only official method recognized now. Nevertheless they still insist that the electric tester be used everywhere possible and otherwise to employ the Brown-Duval machine.

A new dockage machine is now being developed by department officials, it is said, which will cost the trade thousands of dollars if the grain handling industry must purchase this newest "official" device.

A Few Cribs are being sealed, but most farmers would rather market their corn than to sign off their rights for two years.—Buttolph Grain Co., Bennett, Ia.



Weighing and Dumping the Heaviest Loads at the Farmers National Elevator, Morris, Ill.
[See facing page]

Accuracy of Electric Meter Tests Cannot Be Measured by Brown-Duvel Tests

On several occasions in recent months it has come to the attention of the Bureau of Agricultural Economics that members of the trade have checked moisture tests of grain made with the electric meter against tests made with the Brown-Duvel device and if the tests did not agree the conclusion was reached that the tests made with the electric meter were inaccurate. It is desirable, therefore, to point out the fact that neither the electric-meter method nor the Brown-Duvel method for determining the moisture content of grain is the official method established by the federal grain standards now in effect.

Oven Test the Standard.—The true test of accuracy under the standards is that of checking either one of these methods against the oven methods rather than against each other. The "Percentage of Moisture" specifications in the official grain standards, as amended July 1, 1935, provide that the so-called water-oven method shall be the basic official method for determining the moisture content of corn and the air-oven method for all other kinds of grain for which standards have been established. These methods, altho very accurate and altho endorsed by the Ass'n of Official Agricultural Chemists and the American Ass'n of Cereal Chemists, are not adapted to practical inspection procedure because of the time required to make a test. The official stand-

ards, therefore, provide for the optional use of any other method that will give results equivalent to those determined by the oven methods.

The "other methods" at present that are practical for inspection purposes and that, under properly controlled operation, will give equivalent results, are the Tag-Heppenstall electric meter method and the Brown-Duvel method. Exhaustive research conducted by the Buro has shown conclusively that when moisture tests made with the Tag-Heppenstall and the Brown-Duvel devices are checked against the tests made with the official oven methods the electric meter tests are consistently more accurate and more uniform than those made with the Brown-Duvel device, with exceptions in the cases of new mixes of wet and dry grain, of freshly kiln-dried corn, and of corn that is badly out of condition.

Since July 1, 1934, the Buro has issued numerous instructions for operating the Tag-Heppenstall meter and the Brown-Duvel device for the purpose of effecting the maximum degree of equivalency with the moisture test results obtained by the official oven methods. These operating instructions must be followed carefully to obtain moisture tests of reasonable accuracy, and any failure in this respect is certain to cause inaccuracies. Numerous cases of discrepancies in moisture test results have come to the attention of the Buro this year, which were found, upon investigation, to have resulted from failure to operate either the electric meter or the Brown-Duvel device according to the definite operative instructions prescribed by the Buro.

Brown-Duvel Moisture Test Results on Soft White Wheats

The reliability of the cut-off temperature of 190° centigrade recently specified for white wheat as indicated in a supplement to Bulletin 1375, has been confirmed again as a result of laboratory tests by the Federal Grain Supervision on approximately one hundred samples of New York, Michigan and Ohio soft white wheats as checked by means of the basic 130° centigrade air-oven method. Users of the Brown-Duvel Tester can proceed with confidence in the use of the heat cut-off point of 190° centigrade, as at this temperature the results obtained are more nearly equal to oven-test results than was the case with the old cut-off temperature of 180° centigrade.

Enforcement of the penalty tax for failure to accept the Guffey coal code was enjoined by Judge John Paul, Dec. 11 at Lynchburg, Va.



70,000 Bus. Farmers Elevator at Morris, Ill.
[See facing page]



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THIS SIGNATURE ON EVERY CONTAINER

Grain and Feed Trade News

Reports of new firms, changes, deaths and failures; new elevators, feed mills, improvements, fires, casualties and accidents are solicited.

CALIFORNIA

Holtville, Cal.—The Imperial Valley Milling Co. plans rebuilding its plant recently lost by fire, the new plant to consist of two buildings, one of concrete and steel, 120x60 feet, to be used for storage, and a structure 80x34 feet to house the mill unit.

Sacramento, Cal.—Under the California Unemployment Reserves Act, commencing with all payrolls from Jan. 1, 1936, every employer of eight or more persons should deduct 45/100 of 1% of employees' wages, and give employees receipts for deductions, at the time setting up in a special fund 1% of total payroll which includes 90/100 of 1% due the state fund and 10/100 of 1% due the Federal Government. Probably a separate bank account would be best for these combined tax deductions and contributions as there will be less need for detailed research work in books by inspectors.—I. J. Strommes, sec'y California Hay, Grain & Feed Dealers Ass'n.

CANADA

Winnipeg, Man.—The Winnipeg Grain Exchange on Dec. 27 renewed for six months the restriction of 3 cents a bu. on fluctuations in wheat futures above or below the previous day's close.

Winnipeg, Man.—Reginald R. Symes, popularly known as Rex Symes, in charge of grain trading for N. M. Paterson & Co. on the floor of the Winnipeg Grain Exchange, died suddenly in this city on Dec. 17, at the age of 44 years. Taken ill several weeks before, he was that to be on the road to recovery when a blood clot caused his death. He entered the employ of Paterson & Co. 21 years ago, and was held in high esteem by his associates and friends. His father, Fred Symes, still living, was chief grain inspector at Ft. William, Ont., before his retirement.

COLORADO

Manzanola, Colo.—The Beaty Merc. Co.'s alfalfa meal mill here burned early in the night of Dec. 13; the iron-covered elevator and coal sheds were saved. The mill has not been operated for five years. Also destroyed was the large warehouse adjoining the mill, which contained about 15 tons of cottonseed cake stored there by John W. Beaty, and a quantity of baled hay the property of Dresher Bros., of Crowley. The Beaty Co. also lost a quantity of stored dried beet pulp.

ILLINOIS

Manteno, Ill.—We recently installed a truck dump.—Farmers Elvtr. Co.

Laura, Ill.—The Farmers Elvtr. Co. recently installed new legs at its elevator here.

Pana, Ill.—G. E. Munzenmaier is installing a Kelly Duplex Feed Mixer in his feed mill.

Campus, Ill.—We have just installed a 20-ton Fairbanks Truck Scale.—J. H. & G. E. Walsh.

Williamsville, Ill.—We are planning to build a new elevator next spring.—R. E. Lyon, mgr. Williamsville Farmers Co-op. Co.

Yates City, Ill.—C. M. C. Brown recently installed a motor driven one-ton capacity Kelly Duplex Feed Mixer in his plant here.

Yorkville, Ill.—F. E. Barkley has bot for the Farmers Elvtr. Co.'s elevator a McMillin Truck Dump to accommodate the large trucks.

Springfield, Ill.—The Illinois Mfrs. Ass'n has received an opinion from Fyffe & Clarke, its counsel, that the tax on payrolls for unemployment insurance is invalid and will never be collected from Illinois employers unless the state legislature passes the pending compulsory unemployment insurance bill.

Serena, Ill.—We are installing a corn sheller to handle ear corn and have had inquiry for doing custom shelling.—Co-op. Grain & Supply Co., H. C. Morel.

Roanoke, Ill.—The Farmers Co-op. Elvtr. Co. has appointed A. W. Brown, former manager of the Holcomb-Dutton Elvtr. at McGirr, Ill., manager of its elevator.

Delavan, Ill.—A synopsis of the federal motor carrier act of 1935 has been prepared and is being sent to dealers by W. E. Culbertson, sec'y of the Illinois Grain Dealers Ass'n.

Steward, Ill.—The West End Grain Elvtr. Co. has been taken over by the Steward Co-op. Elvtr. Co., a new company composed of local farmers. C. V. Herrmann is the new manager.

Kilbourne, Ill.—We have put in a new 10-ton scale, also built a 10,000-bu. ear corn crib, with dump run by motor. We have a 15,000-bu. concrete elevator.—E. T. McFadden Grain Co.

Piper City, Ill.—The Cunningham Grain Co. has leased until July 1 the two former Montellus elevators recently bot by the LaHogue Farmers Grain Co., of LaHogue, Ill., as reported in the Journals last number.

Heyworth, Ill.—The elevator of the Hasenwinkle-Scholer Co., Inc., that burned Dec. 16, as reported in the Journals last number, will be rebuilt at once. The loss, including 100,000 bus. of grain, amounted to about \$60,000, covered by insurance.

Carthage, Ill.—Vern Simmons has purchased the interest of Ed Lohr in the Lohr & McNeill Co. here and the firm name has been changed to McNeill & Simmons. Mr. Lohr will continue to operate elevators at Paloma and Coatsburg. Jess Voth will continue as manager here.

Kankakee, Ill.—The following officers and directors were elected for 1936 by the board of directors of the Kankakee Grain Exchange at a meeting held on Dec. 20: Pres., C. L. Carter; vice pres., E. E. Rollins, both of Kankakee; sec'y-treas., J. F. Wade. The directors are T. E. Decker, S. E. Fisher, both of Kankakee, and M. P. Ferris, of Irwin, Ill.—Breckenridge Grain Co.

Bentley, Ill.—The Bentley Farmers Elvtr. Co. has recently installed an overhead traveling truck lift designed by the manager. This lift will take care of any length truck hauling grain into the elevator, and will also be used for wagons, which were formerly dumped by a gravity dump. This lift had to be of special design on account of the driveway and floor being built of concrete and could not be altered as that would weaken the floor.

Emery (Forsyth p. o.), Ill.—D. F. Brock, employed at the local elevator of Victor C. Dewein, was suffocated in a bin of corn while trying to dislodge frozen corn, on Dec. 27. Altho it is not known exactly what happened, it was apparent that when he opened the paddle in the bottom of the hopper, a portion of the corn ran out, leaving a cavity in the bottom of the scale; the corn being frozen on the sides and top, formed somewhat of a crust, and when the corn stopped running he entered the hopper from the top, by means of a ladder in one corner, and in attempting to kick the corn loose, lost his balance and fell thru to the bottom, catching his knee in the opening to the spout to the elevator boot. At the same time a large portion of the other corn fell on him, and unable to move, he was suffocated.

CHICAGO NOTES

Board of Trade memberships are selling at \$5,750, a decline of \$50 from the previous transfer.

Chicago Board of Trade membership dues for 1936 have been fixed at \$250, unchanged from last year.

Hulburd, Warren & Chandler announce the admission of Atkinson W. Withrow as a partner in the firm.

The annual meeting of the Board of Trade will be held in Room 300, Board of Trade Bldg., Jan. 13, at 2:30 p. m.

The rate of interest for advances on Bs/L during December has been set by the directors of the Board of Trade at 5% per annum.

Rosenbaum Elevators "A," "B" and Irondale "B" have been declared not regular for deliveries on contract after Jan. 1. Very little grain is in store in the houses.

Trading in wheat for the September delivery began Jan 2, opening at 90½ cents, the highest initial opening since 1930. During the day 383,000 bus. was traded, of which 367,000 bus. remained open over night.

New members of the Board of Trade include the following: Robert F. Meffert, of New York City, with Thomson & McKinnon; E. E. Klecan, Kansas City, Mo.; Mortimer W. Loewi, of New York City, and Percy W. Makinson, Liverpool, England. Memberships transferred: John T. Llewellyn, Louis A. Heber, Estate of Henry A. Poritz, Vernon R. Loucks, Sheldon W. Vanzwoil, Alfred P. Parker. Change of address: James P. Ryan, 373 Board of Trade Bldg.

The election of officers of the Chicago Board of Trade for the coming year, held Jan. 6, resulted as follows: Pres. Robert P. Boylan; first vice-pres., Kenneth Templeton; second vice-pres., Siebel C. Harris. Directors: R. I. Mansfield, James A. Prindiville and George H. Tanner on the regular ticket, and Charles V. Essroger and Winthrop H. Smith on the independent ticket. The regular ticket for the com'te of arbitration, composed of William H. McDonald, Eugene F. Havey, John J. Murphy, Christopher Strasser and John E. Wall, and for the com'te of appeals, composed of Robert W. Darcy, Harry S. Klein, Frederick G. Winter, John J. Coffman, and Edward A. Green was elected.

INDIANA

Orleans, Ind.—The Heise Bros. Elvtr. is being rebuilt and new electric power installed.

Bristow, Ind.—The plant of the Bristow Milling Co. was destroyed by fire on Dec. 29.

Jackson, Ind.—The G. G. Davis elevator has been repaired and repainted with aluminum.—L.

Jonesboro, Ind.—L. F. Rahrar has taken over the feed mill formerly operated by V. R. Thomas.—L.

Kokomo, Ind.—The Morrisson-Thompson Co.'s elevators at Kokomo and Vermont have been repainted with aluminum and make a fine appearance.—L.

N. Hayden (Lowell p. o.), Ind.—Gleaners & Farmers Co-op. Co. has installed a McMillin Truck Dump, also wired the office and elevator for electric lights.

Decatur, Ind.—The Burk Elvtr. Co. is improving its plant at this place by installing a McMillin Type "A" Dump to accommodate increasing truck business.

McCordsville, Ind.—Baxter McBane has disposed of his interest in the Fortville (Ind.) Grain Co. and together with his son William has taken over the McCordsville Grain Co.'s elevator.

Teft, Ind.—The Teft Grain Co. is installing a McMillin Truck Dump and a truck scale, also widening its driveway to accommodate the large trucks. Evert Hall is manager of the plant.

Logansport, Ind.—The Logansport, Walton and Burnettsville elevator companies gave an hour of free entertainment to all their patrons, on the evening of Dec. 21, at the city building in Logansport, in the form of talking pictures. After the show a number of prizes were awarded.

Evansville, Ind.—Tom G. Spates, of New York, has been appointed director of industrial relations for General Foods, Inc., Edgar Igleheart, pres. of Igleheart Bros., Inc., announced.—W. B. C.

Boonville, Ind.—Elza Kramer, Boonville Elvtr. Co. is contemplating the building of a new warehouse and feed storage plant at the South Side elevator. He is installing a Kelly Duplex Cracked Corn Grader with aspirator.

Auburn, Ind.—Herman Sommers, who recently opened a feed and seed store here, is replacing his mill and mixer with new Kelly Duplex machinery. The equipment consists of a model L Kelly Duplex Hammer Mill, with motor drive, and a No. 2 Kelly Duplex Vertical Feed Mixer, with floor level feed and with motor drive.

Indianapolis, Ind.—Charles B. Sinex, widely known in insurance circles, having been with the Grain Dealers National Mutual Fire Insurance Co. since 1908, and a resident of this city for over 40 years, died at his home here on Dec. 29, at the age of 72, after a long illness. Many grain dealers will remember Mr. Sinex as having had charge of the registration of attendants at the conventions of the Indiana Grain Dealers Ass'n for many years. He took an active part in musical circles and also in fraternal organizations. Burial was at New Albany, the birthplace of Mr. Sinex.

Fortville, Ind.—The Fortville Grain Co. has been re-organized, Baxter McBane, the Goodrich brothers, O. L. Morrow and Quitman VanLaningham having disposed of their stock in the company to Mrs. F. V. Hardin (widow of the founder of the Hardin Grain Co., the predecessor of the Fortville Grain Co.) and two sons, Philip and Richard, Carl A. Helms, Ben McBane, Clyde Keyes and Fred L. Wright. The company is incorporated for \$35,000. Clyde Keyes, sec'y and manager, has been manager of the McCordsville Grain Co. for several years. Ben McBane is part owner and manager of the Maxwell Grain Co., Maxwell, Ind.

Indianapolis, Ind.—The business sessions of the annual convention of the Indiana Grain Dealers Ass'n, to be held in this city Jan. 30 and 31, as previously announced, will be held in the library of the Board of Trade. Among the speakers at the convention will be S. W. Wilder, pres. of the Grain & Feed Dealers National Ass'n; Edward C. Parker, of the grain division, U. S. Dept. of Agriculture, and federal grain supervisors from terminal markets. Grain dealers will be given the opportunity of discussing with government officials their views relative to certain changes which have been made in the federal grain grades the last year or two. The entertainment committee for the banquet consists of Glenn Steinhart, chairman; Charles Weirick, Fay Winslow, Albert Deluse and E. K. Shepperd. The Board of Trade, local commission men and other In-

dianapolis firms closely allied to the grain business will again provide the entertainment for the annual dinner, which will be a gala occasion, and the wives are cordially invited to attend.

IOWA

Renwick, Ia.—The Farmers Co-op. Co. recently added a new truck lift to its elevator equipment.

Garner, Ia.—An electric truck lift has been installed in the elevator of the Farmers Co-op. Ass'n here.

Alburnett, Ia.—An oat huller has been installed in the feed mill of the Farmers Elvtr. Co. at this point.

Oelwein, Ia.—A feed mixer has been added to the equipment of the Oelwein Elvtr. Co., which is now making poultry feeds.

Hawkeye, Ia.—A. J. Hochberger, manager of the Farmers Elvtr. Co.'s elevator, has resigned to enter the employ of a bank.

Olin, Ia.—A new electric truck dump and a new corn sheller will be installed by the Olin Elvtr. & Milling Co. in the near future.

Council Bluffs, Ia.—David Clinton Reitz, superintendent of the Scouler-Bishop Grain Co., died Dec. 18 at his home in this city, at the age of 62 years.

Ruthven, Ia.—The Farmers Co-op. Elvtr. Co. at this place has just purchased a new Hart-Carter Cleaner and the T. E. Ibberson Co. is making the installation.

Ft. Dodge, Ia.—R. W. Cormack has been transferred by the Quaker Oats Co. from its local plant to its Milwaukee, Wis., plant. Mr. Cormack has been manager here for 10 years.

Winfield, Ia.—Edward Kirkpatrick has succeeded A. L. Thomas, who has been manager for 27 years, at the Farmers Elvtr. Co.'s elevator. Mr. Thomas resigning because of poor health.

Russell, Ia.—The Leo Grate Mill & Produce Station was slightly damaged by fire, which started in the flue, at noon, Dec. 11. The fire was extinguished by chemicals, with no great loss other than the wall and damage to some feed.

Fenton, Ia.—A building was erected here for the Farmers Elvtr. Co. for storing salt in bulk, as well as for sack storage. The old warehouses were iron clad, as well as this new structure. The T. E. Ibberson Co. had the contract.

Decorah, Ia.—The feed mill of S. E. Brickner & Son was recently enlarged and new equipment, including a truck scale, corn sheller, mixer and oat huller, installed. Nothing remains but to paint the plant, which will be done when weather permits.

Springville, Ia.—The Springville Elvtr. Co. recently improved its equipment by the installation of a new truck lift and a corn sheller.

Gilbertville, Ia.—I opened my mill for business on Dec. 26, and will operate same myself. Will sell a full line of feeds, do custom grinding, mixing and corn cracking. I have built a complete new mill and installed all new machinery.—J. M. Delagardelle.

Des Moines, Ia.—The Seavey & Flarsheim Brokerage Co. (handling groceries principally) has opened a feed brokerage department here, with offices in the Valley National Bank Bldg. At the home office of the company in Kansas City, a feed brokerage department was started about a year ago.

Cedar Falls, Ia.—Sale of all assets of the Brown-Falgatter Co. to Leon K. Apfel, of Shell Rock, was completed Jan. 2, when a district court judge approved the sales contract. The sale includes the real estate milling properties, machinery and equipment, and the stock in trade, grains and feeds, owned by the company in Cedar Falls.

Sioux City, Ia.—Frank M. O'Connor, manager of Lamson Bros. & Co.'s office here for the past nine years, died during the night of Dec. 31 at his home in this city, from an acute heart attack. Mr. O'Connor was manager of Lamson Bros.' office in Ft. Dodge before coming here. Burial was in Mason City. He is survived by his wife and three children.

Morley, Ia.—Harry Miller, of Olin, owner of an elevator here on a railroad right-of-way, has had his lease on the elevator site cancelled by the railroad company, which has filed a claim in court for possession of the elevator building, the petition citing provisions of the lease which required that the building should be removed within 60 days after notice of site cancellation. Reasons given for cancellation of the lease were alleged activities of Mr. Miller against the interests of the railway. The cancellation was approved by the state railway commissioners. The Morley Shipping Ass'n has been offered the elevator at a price and subject to the original terms of the lease on the site, but action has been deferred.

KANSAS

Howell (r. d. from Dodge City), Kan.—C. B. Allen's elevator was damaged by windstorm recently.

Whitewater, Kan.—The Whitewater Flour Mills installed an auxiliary diesel engine recently, of 40 h. p., to be used when the big 175-h.p. engine is not needed.

Concordia, Kan.—J. M. Decker, grain dealer here, died at Bethany Hospital, Kansas City, Kan., on Dec. 21, at the age of 62 years. He had been in business at this point for 35 years.

Junction City, Kan.—The former Aurora Flour Mills Co., recently taken over by the Hart-Bartlett-Sturtevant Grain Co., as reported in the Journals last number, will be operated by the new owners under the name of Tyco Mills.

Vesper, Kan.—The old farmers elevator here burned at noon of Dec. 23, W. W. Feldkamp, owner, being at home at the time; loss is estimated at about \$5,000. About 4,000 bus. of wheat in the elevator and a car partly loaded with wheat on the track near the elevator were burned also.

Hutchinson, Kan.—The Hutchinson Board of Trade gave its usual Christmas party at the close of trading just before that holiday, at which a number of practical jokes were pulled off. Santa Claus was present "in person," and presented each one present with a toy. Several out of town visitors attended.

Hutchinson, Kan.—Construction of the proposed 1,000,000-bu. concrete and steel elevator of the Farmers Co-op. Commission Co. will start on Jan. 15, the contract having been let to Chalmers & Borton on Dec. 21, completion to be in time for the new crop. The site for the elevator is between the Santa Fe and the Rock Island tracks.

Oak Hill, Kan.—A suit for \$5,000 damages, alleged to have been received while he was having wheat unloaded at the Robinson Elvtr. Co.'s elevator here, has been filed by Earl Macy, a farmer, against the elevator company. During the recent high winds in Kansas, the elevator doors were closed and a plank placed across them to keep the wind from banging them. One of the cleats holding the plank got loose and the wind did the rest, swinging the doors open and making the plank hit the farmer in the face.

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KENTUCKY

Central City, Ky.—Underwood Bros. have bot a lot on which they will erect a new mill and move the machinery from their grist mill into it.

Greenup, Ky.—George Riggs, of Riggs, Ky., has moved his flour and meal equipment from his building at Riggs into the old three-story mill building belonging to the Greenup Milling Co. here.

LOUISIANA

Alexandria, La.—The A. R. Rush Co.'s wholesale warehouse, containing, among other commodities, considerable wheat feeds and flour, burned during the week of Dec. 16; loss, \$60,000.

MICHIGAN

Bay Port, Mich.—Wallace & Morley Co. has installed a corn cracker.

Stanwood, Mich.—The Stanwood Co-op. Co. has bot a feed mixer and a 3-h.p. motor.

Elkton, Mich.—The Elkton Co-op. Co. recently installed a ballbearing cob crusher.

Hart, Mich.—Farm Bureau Services, Inc., have installed a corn sheller operated by a 5-h.p. motor.

Zeeland, Mich.—The Farmers' Co-op. Ass'n has postponed the building of its new feed mill until next spring.

Boyne City, Mich.—The Boyne City Co-op. Ass'n has installed an electro-magnetic separator ahead of its feed mill.

Kinde, Mich.—The Farmers Co-op. Elvtr. Co. has installed a feed mixer with 2-h.p. fully-enclosed, self-ventilated motor.

Munger, Mich.—The Chatfield Milling & Grain Co. has installed a ½-ton Sidney Vertical Mixer and a 3-h.p. motor.

Lansing, Mich.—The Michigan Bean Shippers Ass'n will hold its mid-winter meeting in this city in February, at the Hotel Olds.

Sterling, Mich.—The Sterling Elvtr. Co. has purchased a Kelly Duplex 1000-pound feed mixer and a 3-h.p. fully-enclosed motor.

Yale, Mich.—The Yale Elvtr. Co. has installed a fully-enclosed self-ventilated electric motor to drive the main elevator leg in the plant.

Big Rapids, Mich.—The Big Rapids Co-op. Ass'n has recently installed a hammer mill with a built-in electro-magnetic separator.

Adair, Mich.—The Adair Grain & Feed Co. has replaced its oil engine with three electric motors all equipped with automatic control.

Cass City, Mich.—The Frutchey Bean Co. has installed twelve automatic across-the-line starters for the various motors in its elevator.

Avoca, Mich.—The Avoca Elvtr. Co. has installed a corn cracker and a Giant picker driven by fully-enclosed self-ventilated motors.

Flushing, Mich.—The Flushing Elvtr. Co. has installed a 99D cleaner and a 10-h.p. motor. The motor will be enclosed in a fire resistive enclosure.

Bay City, Mich.—Chatfield Bean & Grain Co., incorporated; capital stock, \$30,000; incorporators: Ray P. Chatfield and others; to deal in grain and feeds.

New Haven, Mich.—New Haven Farmers Elvtr. Co. has recently completed a fine new concrete block implement warehouse adjacent to its office and elevator.

Cadillac, Mich.—The Michigan Potato Growers' Exchange is constructing an elevator at the rear of its warehouse building for the handling of beans and grain.

Byron, Mich.—The Central Elvtr. Co. has installed a 35-h.p. motor for its hammer mill to replace a 25-hp. Also installed was a 3-h.p. motor to operate a crusher.

Dowagiac, Mich.—The new home of the Dowagiac Co-op. Co., a tile structure of 10,000 bus. capacity, is about completed and installation of machinery has begun.

Vriesland, Mich.—The Farmers Co-op. Elvtr. Co. has completed repairs to its plant made necessary by a recent fire which severely damaged the first floor of the elevator and the machinery contained therein. The plant is now able to again give complete service to its customers.

Elmdale, Mich.—The Elmdale Elvtr. burned Dec. 26; loss approximately \$10,000. The elevator contained 3,000 bus. of beans, 1,000 bus. of wheat and 20 tons of fertilizer.

Decatur, Mich.—The Decatur Elvtr. Co. recently installed a No. 20 Blue Streak Hammer Mill with a built-in electro-magnetic separator, also a No. 3 feed mixer and a No. 4 Duplex Crusher.

Quincy, Mich.—McKenzie Milling Co. has purchased a No. 30 Blue Streak Hammer Mill with a built-in electro-magnetic separator and a direct connected 30-h.p. fully-enclosed, self-ventilated motor.

Montgomery, Mich.—The feed mill of the Tri-State Co-op. Ass'n burned Dec. 30; loss, \$5,000; partly insured. Machinery and a quantity of grain were also destroyed. An over-heated stove was reported to have been the cause of the fire.

Wixom, Mich.—The Wixom Co-op. Co. has built a 40-foot addition on its concrete block warehouse, part of which is used for a new office and part for a garage. The company has also recently installed a bulk oil station just south of the elevator.

Owosso, Mich.—Fred Cornair, who operates the Brick Elvtr., has purchased a No. 20 Blue Streak Hammer Mill which will be operated by a 25-h.p. motor. This mill is equipped with a built-in electro-magnetic separator to eliminate the tramp iron fire hazard.

Caro, Mich.—The Michigan Bean Co. has purchased a Blue Streak Hammer Mill with a built-in electro-magnetic separator, a feed mixer, a sheller and a Duplex Crusher for installation at this plant. The above equipment will all be powered with fully-enclosed fan-cooled electric motors.

Cutlerville, Mich.—The Meyer Poultry Farm recently replaced its feed mill with a direct-connected hammer mill powered with a 50-h.p. motor. It has also installed one of the latest types of electrically heated and electrically controlled incubators. A built-in electro-magnetic separator was installed on the hammer mill.

Unionville, Mich.—The Unionville Milling Co. just completed the installation of fully-enclosed electric motors to replace its engine power. It has also installed a new hammer mill with a built-in electro-magnetic separator and a 40-h.p. direct-connected pipe-ventilated Fairbanks-Morse motor and a 1-ton mixer driven by a 3-h.p. fully-enclosed motor.

Springport, Mich.—In addition to a beautiful Christmas tree outside, the Croel Elvtr. Co. arranged an old-time Yule Tide service, with Santa Claus and all the other fixings. Numbers were given by the high school orchestra, carols were sung, recitations and addresses given and Santa passed out treats to all present with the compliments of the elevator.

Chesaning, Mich.—The Michigan Bean Co. has recently torn down the addition on the west of the plant which housed the feed mill equipment and is installing in the warehouse at the rear of the elevator new feed mill equipment consisting of a Blue Streak Hammer Mill, a feed mixer, sheller and a Kelly-Duplex Crusher, all of which will be driven by fully-enclosed self-ventilated electric motors.

MINNESOTA

Hector, Minn.—The Hector Co-op. Milling Co. recently installed a disc separator.

Bird Island, Minn.—The Farmers Elvtr. Co. has put a new roof on its feed warehouse.

Pipestone, Minn.—A new one-ton feed mixer has been installed by the Pipestone Grain Co.

Glencoe, Minn.—Installation of a 2-ton batch mixer is contemplated by the W. A. Wolf Elvtr.

Lonsdale, Minn.—The management of the elevator here formerly operated by Thomas Pumper has been taken over by Clarence Schulte.

Brainerd, Minn.—The interest of Mr. Cain, of Senn & Cain, feed and flour, has been sold to his partner.

Almelund, Minn.—Carl G. Carlson has leased his feed mill to his former assistant, Ted Johnson, for a year.

Dundas, Minn.—The T. E. Ibberson Co. is putting in new roller bearing equipment at the L. L. Babcock elevator.

Matawan, Minn.—A new grain cleaner has been added to the equipment of the local elevator of the Hunting Elvtr. Co.

Winsted, Minn.—A 20-ton truck scale, also a truck dump, were recently installed at the elevator of the Farmers Elvtr. Co.

Brandon, Minn.—A corn cracker and grader was recently added to the equipment of the Brandon Feed Store & Hatchery.

Barnesville, Minn.—The driveway of the Farmers Co-op. Elvtr. Co.'s elevator has been improved by installation of overhead doors.

Underwood, Minn.—An overheated stove in the office of the Underwood Grain Ass'n caused a fire which damaged the property on Dec. 23.

Battle Lake, Minn.—McCabe Bros. Co., of Minneapolis, have bot the feed mill here from H. Lindgren, who operated as the Battle Lake Feed Mill.

Spring Valley, Minn.—It is reported that the local mill of the Farm Service Stores has been closed indefinitely, and that a new mill may open here in the near future.

Moorhead, Minn.—A new 15-ton scale was recently installed for the Moorhead Farmers Elvtr. Co., along with a modern dump. The T. E. Ibberson Co. did the work.

Willow River, Minn.—A flour mill 26x36 feet is being erected here, to be completed in the spring. It will be equipped to handle any kind of cereal but will specialize in flour.

Appleton, Minn.—Repairs, including ironcladding the office and putting in new windows, were recently made at the elevator of John J. Hagen & Son, which has been reopened.

Bird Island, Minn.—The Pacific Grain Co. has appointed William Sheehan, former manager of the Farmers National Grain Corp.'s local elevator, manager of its elevator at this point.

Royalton, Minn.—After being in the elevator and mill business continuously for 45 years, W. F. Ahlbrecht, manager of the Ahlbrecht Grain Co., is giving up an active life for a quiet one, on account of heart trouble.

Mankato, Minn.—J. J. LaDue, manager and auditor for the elevators of the Hubbard & Palmer Co. in this part of the state, died at his home here during the second week of December, at the age of 73 years.

Plato, Minn.—The Meuleners Feed & Coal Co. is the new name of the Plato Feed & Coal Co. A new grain cleaner was recently added to the equipment of the local plant, and a batch mixer to that of the branch plant at Green Isle, Minn.

Storden, Minn.—Thieves who entered the Farmers Elvtr. Co.'s elevator during the night of Dec. 8 went to much unnecessary effort to open the safe and failed to do so, tho they might have opened it without a single blow, since it has had no combination since it was damaged by burglars more than a year ago. Money is not left in it any more.

Minneapolis, Minn.—William S. Ankeny, founder of the W. S. Ankeny Co., a grain brokerage firm of which he was president for many years, died at his home in this city on Dec. 23, at the age of 74 years. He was an active member of the Chamber of Commerce for years, retiring from business 15 years ago and traveling extensively in the meantime.

Westbrook, Minn.—The Westbrook Grain Co.'s elevator and the Farmers Elvtr. Co.'s elevator were two of three business places broken into during the night of Dec. 2, the thieves getting a total of \$70 from the three places. At the Farmers elevator the safe was badly damaged, but the Westbrook Grain Co.'s had been left unlocked and contained only about \$10.

MISSOURI

St. Louis, Mo.—St. Louis Grain Club officers for 1936 have been elected as follows: Pres., L. M. Baxter; vice-pres., Bert Collins; sec'y-treas., W. B. Christian. Directors: R. F. Imbs, W. D. Cunningham, George A. McCalpin, A. H. Hoffman and L. W. Munkres.

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HARRY B. OLSON

ASHLAND BLOCK

CHICAGO, ILL.

St. Joseph, Mo.—A meeting is being held in this city on Jan. 8, at the Hotel Robidoux, grain ass'ns in the Middle West co-operating, including Iowa, Nebraska and Missouri.

St. James, Mo.—Phelps & Maries Counties Farmers Produce Exchange, including an elevator, two warehouses and other units, burned Dec. 27; loss, \$75,000; insured. Arson is suspected.

Kansas City, Mo.—The Board of Trade held a New Year's celebration consisting of a dance on the trading floor at the close of the market Dec. 31, in keeping with a custom established a decade ago.

Cameron, Mo.—R. O. Pixlee, in the grain and feed business here for many years, died at his home in this city on Dec. 31. He had been in poor health for over a year. Mr. Pixlee owned and operated the Osborn Roller Mills at Osborn, Mo., for a good many years before moving to this city.

St. Joseph, Mo.—The W. S. Geiger Commission Co., with offices in the Corby Bldg., has been formed by William S. Geiger, associated with his brother, Charles A. Geiger, in the Geiger Grain Co. for the last 18 years. Ed Green, of Padonia, Kan., formerly of the Geiger Grain Co., will be field man for the new firm.

Pattonsburg, Mo.—Henry H. Green, pres. of the Missouri Grain & Millers Ass'n and pres. of the Green-Tooley Mill & Elevtr. Co., suffered a crushed leg in an accident at the mill on the afternoon of Dec. 23. Sacked grain weighing 2,000 pounds fell on Mr. Green and crushed his leg. His injury will confine him to his home for some time.—Frank M. Ward.

Kansas City, Mo.—The Klecan Grain Co., capitalized at \$100,000 and having office in the Board of Trade Bldg., has been organized by E. E. Klecan, who recently resigned as sec'y-treas. of the Russell Grain Co., of this city, to go into business on his own account. He is a member of the Board of Trade and is an applicant for membership in the Chicago Board.

Kansas City, Mo.—Nominees for directors of the Grain Clearing Co. of the Kansas City Board of Trade for the new year were named on Dec. 26 as follows, five to be chosen: F. A. Theis, H. J. Smith, R. A. Kelly, J. J. Kraettli, J. F. Leahy, L. A. Fuller, E. O. Bragg, W. C. Goffe, W. B. Lincoln, W. W. Marshall, H. F. Spencer. There are two holdover directors, H. C. Gamage and H. A. Fowler.

Craig, Mo.—The Brownfield & Teare elevator here has been completed and is now in full operation. It is probably one of the most complete elevators in the state, for modern equipment and operation. The structure is crib, 22,000-bu. capacity, has two legs driven by motors in the cupola, No. 1 Western Sheller and Cleaner, waterproof pit, truck lift and Richardson Automatic Scales. The office is equipped with 20-ton truck scale separate from the elevator.—Frank M. Ward, with Hart-Bartlett-Sturtevant Grain Co.

St. Louis, Mo.—Officers of the St. Louis Merchants Exchange for 1936 have been named by the nominating com'tee of the exchange as follows: For pres., H. B. McCormick; first vice-pres., P. C. Knowlton; second vice-pres., R. F. Imbs. As there is no opposition ticket, the nominations amount to an election. Directors nominated are as follows: A. W. Abraham, Julius Mayer, Ludwig Hesse, Walter H. Toberman and C. R. Pommer, the latter to serve the unexpired term of H. B. McCormick. Election will be held today, Jan. 8.

MONTANA

Coffee Creek, Mont.—On Dec. 25 fire destroyed the elevator and stock of the Judith Basin Grain Co.

Lambert, Mont.—Vern Frasier, manager of the Farmers Union Elevtr. here for the past six years, has resigned.

Billings, Mont.—The articles of incorporation of the Russell-Miller Milling Co., operating plants here and at a number of other points, have been amended, changing the name of the company to the Russell Flour Mills, Inc., and a new company, with the old name, formed, headquarters of both to be at this city.

NEBRASKA

Odell, Neb.—Edward Shalla has been appointed manager of the Farmers Union elevator here.

Guide Rock, Neb.—The Farmers Union Co-op. Co. sustained slight damage to its electrical equipment recently.

Holdrege, Neb.—Mail addressed to the Western Grain & Elevtr. Co. is returned by the post-office marked "Out of business."

Omaha, Neb.—The annual convention of the Nebraska Millers Ass'n will be held in this city Jan. 23, at the Fontenelle Hotel.

Ceresco, Neb.—A truck caught on the hoist cable in the elevator driveway of J. A. Brodd, trustee, and did some slight damage recently.

Nehawka, Neb.—J. Stuart Rough has resigned as manager of the Nehawka Farmers Elevtr. Co.'s elevator and has been succeeded by J. J. Pollard.

Ogallala, Neb.—H. P. Kenfield is the manager of the new elevator here recently leased by the Farmers Elevtr. Co., of Brule, as reported in the Journals Nov. 27.

Elm Creek, Neb.—Elmer Tool contemplates opening a feed grinding business at the mill and warehouse recently purchased from the stockholders of the Farmers Hay & Grain Co.

Pawnee City, Neb.—Joe Brown, local produce man, has bot the large elevator on the Burlington switch that has been unoccupied for several years, had many necessary repairs made and is now using it for shipping grain in and out.

Oshkosh, Neb.—P. W. Klinge put on a novel guessing contest at the Oshkosh Elevtr. during Christmas week. The choice of a prize of 500 pounds of coal, a sack of flour or a sack of any commercial feed in stock to the value of \$2 was offered to the person who came the nearest to guessing the correct number of pounds of corn in a small sack of corn which hung in the elevator office window.

NEW ENGLAND

Templeton, Mass.—With liabilities of \$3,667 and assets of \$150, Wilmer K. H. Simoneau, of Winchendon, grain dealer here, filed a voluntary petition in bankruptcy in the U. S. District Court at Boston.—L. V. S.

Stoughton, Mass.—Wechsler Bros. are installing new Kelly Duplex equipment in their feed mill, consisting of a Kelly Duplex Vertical Feed Mixer, one-ton capacity, with floor level feed, and a Kelly Duplex Corn Cutter and Grader.

Wakefield, Mass.—Leo P. Curley, a member of the firm of Curley Bros., grain dealers, died suddenly in Virginia, Dec. 26, while visiting at the country home of William R. Scharton, a Boston lawyer. He was 51 years old, residing all his life in Wakefield. Survivors are his widow, two sons and a brother, William T. Curley, who was his business partner.—L. V. S.

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BOSTON LETTER

Stocks of grain in Boston elevators as of Jan. 1 were 1,061,662 bus. wheat, all Canadian excepting 4,720 bus.; 113,334 bus. corn, 26,241 bus. oats, and 8,195 bus. malt.—L. V. S.

F. W. Dickerman, Boston flour man, is busy directing the destiny of the Cheezcorn Co. of New England, producing and marketing popcorn with a cheese coating.—L. V. S.

About \$400 was saved for the National Grain Yeast Corp. a few days ago when thieves broke in a rear window at the Cambridge offices and attempted to open the safe but were frightened away before they finished the job.—L. V. S.

Robert C. Bacon took over as an individual the grain futures commission business of the E. R. Bacon Grain Co., one of the oldest grain firms in New England. He remains vice-pres. of the concern and will continue looking after the cash sales in this territory. This change in registration took place as of Jan. 1.—L. V. S.

One of the largest shipments of flaxseed ever brot to Boston, amounting to 3,000 tons, came in on the steamer East Indian, Jan. 1, from Argentina. It was the first bulk cargo of the kind to come to Boston and was discharged thru the grain sucking equipment at Mystic Docks. Previous receipts were bagged because of lack of discharging facilities here for bulk grain, prior to installation of the pneumatic system. The flaxseed is destined for Montreal and Baden, Ont.—L. V. S.

NEW YORK

Yonkers, N. Y.—It is reported that negotiations were recently discussed with the mayor of this city for the reconstruction of the Spreckels Sugar Corp.'s buildings, to house a huge flour milling plant and to include the erection of a large grain elevator. The satisfactory conclusion of the negotiations is said to hinge on terms arrived at over the settlement of back taxes against the main property.

NORTH DAKOTA

Beulah, N. D.—The local roller mill was damaged by fire on Dec. 23.

Valley City, N. D.—The Occident Elevtr. Co. has erected a 30x60-foot warehouse and 20x39-foot coal sheds.

Dover (Carrington p.o.), N. D.—A new cleaner and a new leg belt have been installed in its elevator by the Hanlon Grain Co.

Almont, N. D.—A new boot tank was installed here for the Minnetonka Elevtr. Co. and other repairs made. The T. E. Ibberson Co. did the work.

Sherwood, N. D.—The St. Anthony & Dakota Elevtr. Co. has made O. Gremsgard, who has had charge of its local elevator, manager of its elevator at St. Thomas, N. D.

St. Thomas, N. D.—O. Gremsgard, who has been manager of the elevator of the St. Anthony & Dakota Elevtr. Co. at Sherwood, N. D., has been transferred by the company to this point.

Turtle Lake, N. D.—A 5,000-bu. addition is under construction at the elevator of the Equity Elevtr. & Trading Co., which will give it a total capacity of 50,000 bus. Completion will be by Feb. 1. Equipment for processing all kinds of seeds will be installed.

Fargo, N. D.—The Russell-Miller Milling Co., operating a plant here and at various points thruout this country, has amended its articles of incorporation, changing its name to the Russell Flour Mills, Inc., and a new company bearing the old name, Russell-Miller Milling Co., was formed. Headquarters of both companies are at Billings, Mont.

Rolla, N. D.—A new 15-ton scale, together with a Strong-Scott Dump, was recently installed at the local elevator of the Great Western Grain Co. At the Pendennis, N. D., elevator of the company new foundations were put in and general repairs made. At Lignite, N. D., new roofs were put on the elevator. The T. E. Ibberson Co. did the work at all three houses.

OHIO

Pickerington, O.—The Pickerington Milling Co. recently installed a Sidney Electric Truck Dump.

Atlanta, O.—The elevator of C. E. Groce sustained windstorm damage several weeks ago.

Ney, O.—The D & E Feed Co. has recently installed a 20-ton scale furnished by the Duplex Mill & Mfg. Co.

Pleasant Bend, O.—The post office at this point has been closed and mail is now received at New Bavaria.

Ottawa, O.—Ottawa Grain Co. recently replaced its hammer mill with a new Kelly Duplex Hammer Mill, Model KT.

Ashtabula, O.—Fred D. Magoon, vice-pres. and general manager of the central states division of Farm Service Stores, Inc., has resigned.

Custar, O.—The Deshler Farmers Elvtr. Co. recently installed in its local elevator a scale, dump equipment, cleaner and motor equipment, furnished by the Sidney Grain Mch'y. Co.

Richwood, O.—The Hunt Milling Co. has leased the elevator and coal yard of the Richwood Implement Co. and has taken possession. George W. Hunt, Sr., is manager of the company.

Toledo, O.—The National Milling Co. (National Biscuit Co. subsidiary), operating the mill in this city, has been dissolved and the business has been taken over by the parent company. The same personnel as before is continuing the business.

Willshire, O.—Willshire Co-op. Co. is installing a McMillin Type "A" Truck Dump for two dumps in its elevator where they dump thru a new 20-ton truck scale. This makes the plant complete in every way, feed machinery having been installed recently also.

Circleville, O.—Two burglaries at the Pick-away Grain Co. have been cleared up, in which five boys, ranging in ages from only 9 to 11 years, are involved. A rifle was taken from the company on Oct. 30 and a candy vending machine was raided on Dec. 14.

McMorran (Bellefontaine p. o.), O.—All interests of the Duncan Seed, Hay & Grain Co., who operated a seed house and a grain elevator here, have been purchased by Grant McMorran, of St. Paris, O., who is well known to the grain trade as he has built and operated numerous elevators in Ohio during his 50 years in the grain and seed business. He was pres. and general manager of the former company. The grain elevator here will be operated as McMorran Elvtr. and will be managed by Charles Wolfinger, who has held the same position with the former company for the past seven years.

Ashland, O.—The 70-year-old elevator building, owned and operated as the John L. Donley & Bro. elevator for the past 15 years, burned at about 10 p. m., Dec. 21; loss, approximately \$38,000; covered by insurance. Destroyed with the elevator was over 8,000 bus. of grain, including wheat, oats and corn, and all the equipment in the building. Seven carloads of Donley's manufactured feed was also destroyed. No damage was done to the other buildings occupied by the Donley brothers and business was carried on as usual following the fire. Temporary equipment was installed in the new seed and wool building, seed cleaning building, storage building and garage, and a temporary office was established in a small building near the seed cleaning building, and necessary machinery for grinding and mixing feed installed in temporary quarters. The safe containing all records was removed from the ruins in perfect condition. The elevator will be replaced by a new one.

OKLAHOMA

Vinita, Okla.—The plant of the Baxter Mill & Elvtr. Co. burned Dec. 31; loss, \$20,000; insured.

Shattuck, Okla.—The Shattuck Milling Co., closed since last September, opened on Dec. 16 under the management of Temple H. McCollough. Dr. J. Mark Duncan is the owner.

Tahlequah, Okla.—The sales room of the Tahlequah Mill & Elvtr. Co. has been remodeled, the entire front of the building being torn out and a new one built, the front wall being set back two or three feet, making the walk in front of the building wider.

Renfrow, Okla.—The Clyde Co-op. Ass'n has taken over operation of the Hacker Co.'s 28,000-bu. elevator at this point and Lewis Dahlem will be manager. The ass'n now has four elevators, located at Medford, Clyde, Renfrow and Nardin, with a total storage capacity of 97,000 bus. The house at Nardin is leased by the ass'n but the others are owned by it. The Hacker Co. retains one mill, at Jefferson, and two elevators, located at Medford and Pond Creek.

Durant, Okla.—The central building of the old Choctaw Flour & Milling Co., now owned by the Choctaw Cotton Oil Mill Co., burned during the night of Dec. 16; partly insured. The building, constructed about 30 years ago, had not been in use during the past two years except for the occasional storage of grain and at this time only a small amount was in storage. It contained some grain grinding machinery. The company's big cotton oil plant near by was saved by the good work of the fire department.

El Reno, Okla.—The Canadian Mill & Elvtr. Co. has let the contract for the construction of its new 800-barrel mill to the Jones-Hettelsater Const. Co., Apr. 1 being the date set for completion. The building will be of re-inforced concrete, the mill itself being 36x92½ feet, six stories in height, with basement. It will be located south of the grain storage tanks. On the east side will be erected a two-story warehouse. About the middle of this month contract will be let for the new milling machinery, which will be of the latest type. Horner & Wyatt drew the plans for the new unit, which replaces the fire loss of last summer.

PACIFIC NORTHWEST

Battle Ground, Wash.—An early morning fire of undetermined origin, on Dec. 25, completely destroyed the H. Gregerson Feed Mill here. Estimated loss of \$20,000.—F. K. H.

Seattle, Wash.—D. C. Botting, manager of the Federated Industries of Washington, has had prepared a very instructive bulletin on the requirements of employers under the state unemployment compensation act, and a digest of the federal social security act.

Seattle, Wash.—Harold Reif, who has had charge of the local Bunge Grain office, is returning to New York this month, and Mr. Foster will manage the business here, with Bill Wright in charge of the Portland office of the company. The Spokane office has been closed.

PENNSYLVANIA

Philadelphia, Pa.—Edmund P. Cochran, grain broker having offices in the Bourse, is reported as improving after having suffered a stroke on Dec. 19. He is now at his home.

SOUTH DAKOTA

Watertown, S. D.—Exposure fire slightly damaged the elevator of the Hoover Grain Co. on Dec. 22.

Geddes, S. D.—Joe Varuska has been appointed manager of the Farmers Co-op. Elvtr. Co.'s elevator, succeeding Victor Ostberg.

Watertown, S. D.—The elevator of the Von Wald-Lovre Co. on the C. & N. W. R. R. burned Dec. 22; loss, about \$15,000. This was formerly the McBath & Selmsler elevator.

Lebanon, S. D.—Contract has been let by the Lebanon Equity Exchange to the V. M. Zwebber Co. for the erection of a 25,000-bu. elevator, replacing the company's recent fire loss, as previously reported. The new house will be up-to-date in every respect and provided with modern equipment.

SOUTHEAST

High Point, N. C.—The Clinard Milling Co., Inc., sustained a sprinkler leakage loss on Dec. 24, caused by a pipe bursting due to freezing.

Birmingham, Ala.—Clarence E. Bigsby, who was engaged in the grain brokerage business in this city for 23 years, died at the home of his daughter Dec. 19, at the age of 70 years.

TENNESSEE

Nashville, Tenn.—On Dec. 21 the flour mill operated as the Haymarket Mills burned; loss, approximately \$40,000. Edward Glennon and John McGraw, the present owners, have been operating the mill for two months.

TEXAS

Dalhart, Tex.—The Mayfield Feed & Grain Co. has changed its capital stock from \$20,000 to 3,000 shares of no par value.

Harlingen, Tex.—Banks L. Miller's corn elevator, erected last summer, as reported at the time, burned Sunday, Dec. 8, at about 6 a. m., the fire starting in the basement; loss, approximately \$40,000; insurance for about half the value. All the equipment, 2,800 bus. of seed corn, one carload of small grain, a truck and four trailers were destroyed. A new structure, to be of concrete and steel, will be built at once, replacing the fire loss.

WISCONSIN

Oconto Falls, Wis.—A new feed and flour warehouse will shortly be erected by the Oconto County Co-op. Ass'n here.

Sun Prairie, Wis.—Fishers Feed Store is adding a new Kelly Duplex Corn Cutter and Grader and corn sheller to its feed mill equipment.

Hustler, Wis.—L. H. Herrewig is installing a new Kelly Duplex Vertical Feed Mixer. The machine has capacity of one ton and has floor level feed.

Strum, Wis.—We recently installed a 75-h.p. diesel engine to operate our flour and feed mill. We have a 50-barrel capacity flour mill.—Alfred Blumentriet & Son.

Milwaukee, Wis.—The Quaker Oats Co. has transferred R. W. Cormack, who has been in the employ of the company for 37 years, from its Ft. Dodge, Ia., plant to its plant in this city.

Milwaukee, Wis.—The Kurth Malting Co. is increasing its stock from \$500,000 common and \$500,000 preferred to \$1,197,000, consisting of 9,100 shares, including 5,000 common of \$100 par value, and 4,100 preferred \$170 par.

Sawyer, Wis.—The elevator of the Bushman Milling Co. was damaged by fire on the evening of Dec. 7; loss, approximately \$3,000, mostly from water used to extinguish the fire; covered by insurance. Several thousand bus. of grain were on hand in the elevator, but most of it was in the other end and escaped damage. The feed grinding machinery was untouched by the fire and was operated as usual, but about three weeks were necessary to repair the flour-making machinery, the damage to which was done by the water.

In percentage, trucks hauled 42.3 per cent of the cattle received at the 62 markets during October, 50.1 per cent of the calves, 59.9 per cent of the hogs and 21.6 per cent of the sheep. In all, the trucks hauled 2,793,074 animals to the 62 points during the month. While total deliveries decreased truck deliveries actually increased.

**Specialists in
Ventilating Grain Elevator Legs and Grain Storage Bins**

HH ROBERTSON CO
BUILDING PRODUCTS BUILDING PRODUCTS
PITTSBURGH, PA.

District offices in Chicago, St. Louis, Minneapolis and other large Cities
ROBERTSON PROTECTED METAL ROOFING AND SIDING IS STRONG AND CORROSION-PROOF!

Sec'y Pete Lee Passes On

Pete A. Lee, 58, Grand Forks, N. D., sec'y of the Farmers Grain Dealers Ass'n of North Dakota, succumbed to a brain tumor Dec. 19 with which he had been suffering since Nov. 1, and for which he had been operated on three days before. He passed away at the Rochester, Minn., hospital.

Born of Norwegian parents Dec. 5, 1879, Peter Arntson Lee grew up on a farm in Grand Forks county. The accidental death of his father in 1890 early burdened him with



P. A. Lee, Grand Forks, N. D., Deceased.

responsibilities and Pete operated the homestead farm until 1898, when he became a salesman of farm machinery. In 1905 he became connected with the State bank of Brockett, and six years later he was made cashier of the Bank of Pekin.

In March of 1917 Pete was made sec'y of the Farmers Grain Dealers Ass'n of North Dakota, and moved to Grand Forks to take charge of the ass'n office. In this position he made his greatest strides for the benefit of the grain trade, welding farmers' elevators and independents alike into a solid organization that worked together on common trade problems.

One of the most important projects he undertook was the effort to collect obligations of the United States government to country elevator companies of the Northwest for storage and insurance on grain held for the government during the War. In spite of successive failures Pete persisted until a bill was finally passed by the Senate at the last Congressional session, and is expected to pass the House during the short session now under way. Surviving Mr. Lee are his widow, four sons, and three daughters.

The American Corn Millers Federation will hold its annual meeting on Jan. 18, in Chicago.

Books Received

NATIONAL INDUSTRIAL CONFERENCE BOARD 19th annual report explains the purposes of the Board, its organization and support, activities, services, publications, tells of the personnel. The Board has 104 individual members who meet regularly each month in private conferences, to discuss information currently developed by the research staff, now consisting of 54 workers. The regular work of the Board and its ordinary expenses are financed by voluntary subscriptions by individuals and corporations. During the year expenses have been \$215,328, and income \$238,883. Paper, 75 pages, the National Industrial Conference Board, New York, N. Y.

INCOME AND ECONOMIC PROGRESS. It is no fulsome flattery to state that this is the best book on cause and cure of depression. The author has no ax to grind, any more than has a judge of the Supreme Court. His facts are true, his deductions sound. Scientifically accurate, its language is understandable by the man in the street, who above all sadly needs education if he is to stand firm against the economic nostrums touted by politicians of high and low degree. Altho Harold G. Moulton is nominally the author all the ample resources of the Brookings Institution have been drawn upon for facts. The author proves that we are suffering from under-production and not from over-production, but from under-consumption. To give all a reasonable standard of living would require an increase in production over 1929 levels of 75 per cent. So well written is the book the reader finds it easy to follow the thought without mental fatigue. The chapters are "Our Failure to Utilize Productive Power," "The Primary Source of Economic Difficulty," "The Possibilities of Foreign Markets," "Some Basic Misconceptions," "Is Wealth Equalization the Remedy?" "Taxation and Public Enterprise," "Raising Money Wages as a Road to Progress," "Distributing Income Thru Price Reductions," "Price Stabilization in Relation to Progress," "What About Profits?" "Economic Progress and the Democratic Ideal." Published by the Brookings Institution, Washington, D. C. Cloth, 191 pages, indexed; price, \$2.

Additional Calendars Received

John E. Brennan & Co. are favoring their friends with a wall calendar having figures so large they can be read at a distance.

The Grain Insurance and Guarantee Co. embellishes its calendar with a painting on colors of a skiing party in the timber. Each sheet has a fire prevention suggestion.

The International Harvester Co.'s three calendars depict one a winter scene and the two others tractors in service, the photographs reproduced in the engravings being very instructive.

The Columbian Rope Co.'s large wall calendar will be welcomed for its artistic painting by Chas. Robert Patterson of the extreme clipper ship N. B. Palmer that made the fastest run from China to New York in 82 days.

The Great Eastern Feed Mills of Lowell combines a good spirit thermometer with a desk calendar that its recipients will be reluctant to part with. A slide permits changing the months. The metal case has a glass cover, all in harmonious browns.

The Eagle Roller Mill Co., of New Ulm, maintains its high standard of past years in the selection of feminine loveliness to adorn its 1936 calendar, its advertising value enhanced by a view of the milling plant and reproduction in colors of its two leading brands.

Bunker Hill Elevator Co., of Bunker Hill, managed by Chas. W. Scott, promises "A Square Deal All 'Round" on a clever thermometer and "grease, oil, and battery" record, backed by a pin fastening for attaching to the cloth lining of the autos of its customers and friends.

The Society of Grain Elevator Superintendents of North America emphasizes safety first in its calendar dramatically illustrating the hazards in industry. In addition to each new month's forceful picture being suitable for framing, the back of each contains a thorough lesson in safety work.

The Rice Grain Co. sends holiday greetings with its calendar, the first page having only the painting of an old thatched cottage for which the artist, Claude Strachan, is famous. The second page bears "Thought for Christmas" by Edgar A. Guest, and a modest calendar pad.

Popping Quality of Corn Lost by Dry Storage

Studies at Iowa State College by J. C. Eldredge of the Agronomy Department and at the New York Agricultural Experiment Station by F. C. Stewart reveal that most of the trouble encountered in the popping of corn can be traced to the method of storing it.

Corn stored where the outside air has free access to it will maintain a fairly uniform moisture content of about 13 per cent—the ideal for best popping results. Popcorn should never be stored where it will be subjected to dry air, the experts say.

If popcorn fails to pop, place it in a 2-quart fruit jar with a small amount of water. Seal the jar and allow it to stand a few days, and presto!—it will really pop.

A temporary injunction restraining the collection of processing taxes on corn was granted at Peoria, Ill., Oct. 22 to the Penn-Maryland Distilling Co.



Forecast for 1936 - - **WET**
You can still be - - - **DRY**
and on the safe side by using

the

GRAIN DRIER
WITHOUT A BOILER

... that's a ...

RANDOLPH

Standard equipment of the
world's largest Flour Mills,
Grain Elevators and Feed Manufacturers.

Write for Catalog.

O. W. RANDOLPH COMPANY
Toledo, Ohio, U. S. A.

Field Seeds

Vinton, Ia.—W. H. Thompson, formerly in the seed and feed business, died Dec. 26.

Maryville, Mo.—The Earl E. May Seed Co., of Shenandoah, Ia., has opened a branch store here.

Swedesboro, N. J.—The business of Edgar F. Hurff has been incorporated under the name Edgar F. Hurff Co.

Blackfoot, Ida.—After having been discontinued for several years the Idaho Grimm Alfalfa Seed Growers Ass'n will resume advertising of its Blackfoot brand.

Emo, Ont.—A seed cleaning plant will be installed by the seed growers ass'n of the Rainy River district in the new jail, which has been turned over by the municipality as not needed.

Shreveport, La.—W. B. Boogaerts has bot the business of the Tusten Seed & Produce Co., following the death of its manager, E. H. Porter, and is conducting it as the Planters Seed Co.

Richmond, Va.—The Venable Seed Co. is the new name of the Albert C. Diggs Seed Co., a subsidiary of the Carter-Venable Co. acquired last March, thus avoiding confusion with the old name of Diggs & Beadles.

State College, Pa.—Retail seedsmen have been invited to attend a conference at the state college where the adaptability of field and grass varieties will be considered. Jan. 9 will be devoted to farm seeds and Jan. 10 to the grasses.

San Francisco, Cal.—A meeting of the California Seed Council was held recently in the Agriculture building. For nine weeks beginning Jan. 5 radio broadcasts will be sponsored by the Council carrying the farmers the message of good seed.

Charleston, S. C.—Ashley St. J. Mixson died of kidney trouble Dec. 12. He was a son of the late W. H. Mixson, who founded the W. H. Mixson Seed Co., Ltd., and until his retirement had been connected with the company. He is survived by his wife and three children.

Production of grass seed adapted to our semi-arid regions offers a real source of income for farmers who are interested in this line of work, according to C. R. Enlow, plant explorer of the U. S. Dept. of Agriculture, who reports that about a million pounds of seed of 20 species of native grasses were harvested in 1935.

Lafayette, Ind.—More than 700 entries of corn, soybeans and small grains are expected at the Indiana Corn Show which opens on Jan. 13 at Purdue University. The Corn Show is opened by the annual banquet of the Corn Growers Ass'n on the evening of Jan. 13 at which Pres. E. C. Elliott of Purdue officially crowns these men who have won national honors.

Dusts are very efficient in treating seed as well as convenient to use; but it is advisable to employ some form of churning device rather than to depend upon flowing the seed thru some gravity home-made device that fails to coat thoroly each kernel during the short time taken to drop thru and out. The seed can best be thoroly impregnated with the dust by some power driven machine after the manner of a concrete mixer that will repeatedly stir up the seed and dust together.

Minnesota Seedsmen Meet

The Minnesota Seed Dealers Ass'n held its 7th annual convention at the Athletic Club, Minneapolis, Minn., Dec. 21.

C. P. Hull, in charge of weed and seed control for the Minnesota Department of Agriculture, warned the seedsmen that a critical situation existed in seed corn for 1936, there being no reserve of good seed from the 1934 crop.

The visitors were entertained at luncheon by Northrup, King & Co.

Officers elected for the ensuing year are: Pres., Wesley Jameson, St. Paul; vice-pres., J. H. Withey, Minneapolis; sec'y-treas., Leslie Edgerton, Minneapolis. Directors, in addition to the pres. and sec'y-treas.: Stanley Folsom, Minneapolis; H. C. Fisher, Minneapolis; Eugene Le May, St. Paul; L. L. McCulloch, Minneapolis; J. R. Cashman, Owatonna, Minn.

A Portable Seed Cleaner

A new feature of the Agronomy Department's program at the annual agricultural conference to be held at Purdue University Jan. 13 to 17 will be the demonstration of a portable seed cleaning machine. The use of portable seed cleaning equipment has proven very popular in the southwestern section of the state.

These portable seed cleaning units consist of a modern fanning mill, a cockle separator, and a seed treater mounted on a truck. The units are set up with conveyors and elevators to make all operations automatic. The unit uses a small gasoline engine for power. The chief advantages are the convenience and the providing of the services of equipment that an individual farmer cannot afford to own. The machines travel from farm to farm cleaning and treating seed just prior to the seeding season.

This type of service has proven so popular in southwestern Indiana that a fleet of seven machines were used in cleaning the seed wheat during the past summer and fall. The machines are particularly adapted for use on the bulky field seeds such as wheat, oats and soybeans. The automatic treater also applies the dust disinfectants to the seeds where this service is wanted.

The capacity of the machines ranges from 40 to 50 bushels per hour. The introduction of this service in the southwestern section of the state has practically eliminated the stinking smut infection of wheat and has greatly improved the quality of grain going to market.

Seed Movement in December

Receipts and shipments of seeds at the various markets during December, compared with December, 1934, in bushels, except where otherwise noted, were as follows:

	FLAXSEED		Shipments	
	Receipts	1934	1935	1934
Chicago	251,000	19,000	28,000	4,000
Minneapolis	575,270	241,590	122,010	39,440
Superior	4,365	3,872	90,949	4,160
	KAFIR AND MILO			
	Receipts	1934		
Hutchinson	15,400	11,000		
Kansas City	85,400	40,600	40,800	30,000
Wichita	1,300	11,700	1,300	5,200
	CANE SEED			
	Receipts	1934		
Ft. Worth	3,300	4,400		
Kansas City	7,000	25,200		
	SORGHUMS			
	Receipts	1934		
Ft. Worth	101,200	68,200	89,100	33,000
	CLOVER			
	Receipts	1934		
Chicago, lbs.	716,000	344,000	1,049,000	335,000
Milwaukee, lbs.	585,830	260,665	57,220	52,790
	TIMOTHY			
	Receipts	1934		
Chicago, lbs.	1,493,000	.....	864,000	91,000
Milwaukee, lbs.	1,362,475	.....	30,240	26,725
	SOYBEANS			
	Receipts	1934		
Chicago	1,513,000	307,000	135,000	12,000
Toledo	331,800	.....	.....	.....

Three Wheats Registered in 1935

Three new, improved varieties of wheat were admitted to registration in 1935—Hymar, Comet and Clarkan.

In the first registration, 9 years ago, there were 265 varieties. Fifty-one new and improved varieties have been admitted since.

Hymar was developed in co-operative experiments of the Washington Agricultural Experiment Station at Pullman and the Division of Cereal Crops and Diseases of the Department of Agriculture. It is a winter-habit, high yielding, soft, white-kerneled club wheat, similar to Albit in appearance and is expected to replace Albit in the Palouse section of Washington. About 1,000 bushels of seed were distributed for commercial growing in the fall of 1935. Hymar shatters less than Albit and has a heavier test weight per bushel and a higher average yield. It is similar to Albit in smut resistance.

Comet was developed in co-operative experiments of the Division of Cereal Crops and Diseases and the Montana Agricultural Experiment Station from a cross between Marquis and Hard Federation made in 1921. Comet is a hard red spring variety with strongly awnleted spikes, white glabrous glumes, and light-red kernels. Its superior characters are drought resistance, early maturity, and high yield. Comet is being used with excellent results as a parent in further hybrid combinations. It has not been distributed for commercial growing.

Clarkan was developed by Earle G. Clark, Sedgwick, Kan., from a natural Blackhull, soft wheat cross, in 1916. The soft red winter wheat parent probably was Harvest Queen. Clarkan was developed from a single kernel planted in 1920. The variety was tested by the Kansas Agricultural Experiment Station and was first distributed by Mr. Clark in 1934 after it was recommended by the Kansas station and crop improvement ass'n, to replace Harvest Queen. The advantages of Clarkan over Harvest Queen are stiffer straw and higher yield.

The revamped Frazier-Lemke farm mortgage moratorium law was declared invalid Nov. 16 by the U. S. Circuit Court of Appeals at Chicago. The court said: "We think the fixing of a specific period of redemption constitutes such a state regulation of property rights as to bar congress from altering it."

Our calculations based on kernel count work by T. R. Shaw, of the Cargill Crop Bulletin, and others, indicate there are approximately 1,080,000 kernels in a bushel of 60-lb. wheat; 1,320,000 kernels in 55-lb. wheat; 1,650,000 kernels in 50-lb. wheat, and 1,800,000 kernels in 45-lb. wheat.—H. R. Sumner of N-W Crop Imp. Ass'n.

Directory

Grass and Field Seed Dealers

CRAWFORDSVILLE, IND.

Crabbs, Reynolds, Taylor Co., clover, timothy.

GREEN SPRINGS, OHIO

The O & M Seed Co., seed merchants.

MILWAUKEE, WIS.

Kellogg Seed Co., field seed merchants.

PAULDING, O.

Stoller's Seed House, wholesale field seeds.

ST. LOUIS, MO.

Mangelsdorf & Bro., Ed. F., wholesale field seeds.

SIOUX CITY, IOWA

Sioux City Seed Co., seed merchants.

Crossed Seed Corn May Help Overcome Costly Variation

Such things as insects, differences in soil fertility, and differences in the length of the growing season are at least partly responsible for the fact that the value of the Illinois corn crop during the past fifty years or so has varied from a high of \$444,400,000 in 1917 to a low of \$60,327,000 in 1932, a difference of \$384,073,000. Progress toward producing crossed seed corn which will overcome these conditions more quickly than they could be met thru selection in ordinary open-pollinated varieties of corn has been made in further experiments by C. M. Woodworth and W. J. Mumm at the Illinois Station. They are studying fundamental principles of breeding underlying yield, quality, and disease resistance in corn and the application of these principles to corn improvement thru hybridization and selection.

In these experiments many inbred lines are being developed and tested as to their value in crosses. These inbred lines have certain characteristics with regard to yield, quality, maturity, disease resistance, and standing ability that they transmit in crosses. The properties of a cross can be predicted roughly if the lines that enter into the cross are known. Since lines of known worth are now available, it is possible to produce crossed seed to meet certain conditions, such as insect hazards, fertility differences, and differences in length of growing season, and do it more quickly than would be the case thru selection in open-pollinated varieties. This, of course, helps raise the quality of the crop, reduces production costs, eliminates costly losses, and widens the farmer's margin of net return.

Two hundred eighty-six inbred strains in various stages of inbreeding were carried on last year. These strains originated from Reid Yellow Dent, Illinois Two-Ear, High Yield, Low Ear, High Oil, Long John, Moore Yellow Dent, and various hybrids. All of the older strains were used in top-crosses with Reid Yellow Dent. Such top-crosses give a good indication of the future value of lines in crosses. In one group of lines attention is centered on a long husk as a means of protecting the ear against insects. Long husk lines were brought in from Georgia and crossed on an early Illinois variety to shorten the required growing season of these lines. Selection is being practiced in these crosses.

In another experiment hybrids were backcrossed to the inbred lines that went into the original cross in an attempt to produce improved lines that are more vigorous. This work has not been carried on long enough to see what the outcome will be.

The yield test of all these new strains was divided into two parts on account of an increase in the number of strains to be tested. Forty-eight new crosses that had not been tried before were planted in a preliminary test. Eleven of these were good enough to warrant entering them in the regular test next year. Twenty-two strains, consisting of eight hybrids, eight top-crosses, four varieties and two varietal crosses, were in the regular test. Four top-crosses, two varietal crosses, and two hybrids were better than the check variety, Reid Yellow Dent. The conditions under which both tests were carried on were very severe because of drouth, heat, and chinch bugs. The general average yield of all the strains in the regular test was only 36 bushels an acre.

The value of seed selected from a field planted with a good top-cross was the object of another yield test. Fifty choice ears from a field planted with Reid \times 2204 were compared with the original Reid and yielded only 63.6 per cent as much.

A detasseling block for the production of top-crossed seed was planted again this year. The inbred was planted in every third row as before, but the results were improved this year by delaying the planting of the inbred for a week after the open-pollinated Reid and Krug varieties were planted and by planting a double row of the inbred strain entirely around the plot. While the yield of good seed was considerably below that of last year because of drouth and chinch bugs, the fertilization of the ears was unquestionably more nearly complete in spite of the unfavorable conditions.

Experiments are being continued on the improvement of open-pollinated varieties by collecting pollen from the best plants in rows set aside for pollen production and applying this pollen to the shoots of the best plants in rows set aside for ear production. Reid and High Yield strains are in this test. One can select good pollen parents as early as the pollen-shedding period, as shown by the results this year. In both strains plants used as pollen parents were tagged and the ears harvested separately. When air dry they were weighed and measured with the following results:

	Av. ear length, inches	Av. ear weight, grams
High yield:		
Selected pollen parents....	7.0	200
Balance of plants.....	6.3	156
Reid:		
Selected pollen parents....	8.1	218
Balance of plants.....	6.6	150

Yields will be secured on seed produced in this way next year.

Northwestern Seed Wheat Not Deteriorating

Nearly every community has a story or stories about some particular field or variety which escaped serious rust injury. In some few instances these rumors are well founded; in too many cases it is due to semi-malicious exaggeration, or to an overlooking of the fact that the field in question was seeded extremely early, or to a failure to realize that the variety while resistant to rust infection is quite inferior in other respects, writes H. R. Sumner of N-W Crop Improvement Ass'n in the Northwestern Miller.

There are others who feel that Northwest seed wheat in general—Marquis, Ceres, or other varieties—has degenerated in purity or breeding to such an extent that the importation of new seed from non-rusting areas is the only means of salvation. That belief is understandable and natural when one considers the difficulties that have beset our spring wheat crop for the past four or five years. However, from a technical or scientific point of view, this belief is not tenable. Experiments have proven many times that seed wheat imported from distant localities is no better in yield or quality than that of local origin, providing, of course, that the purity of the two compared lots is equal. And, there are seed fields in the four northwestern states just as pure and well bred as those in Canada and elsewhere.

The unsettled state of mind on the question of rust resistant spring wheat varieties will probably cause many to plant durum next spring. Our point of concern in this reaction is that too many growers will make the change regardless of soil or climatic adaptation and, what is worse, regardless of variety planted.

The "change variety" impulse which has been created this year can result in either a backward or a forward step for future wheat harvests in the Northwest. The wheat grower needs to be contacted this winter. An opportunity should be provided for him to discuss and to hear discussed, the problems involved in sowing light-weight seed and to again restate the practical variety recommendations that are best for the hard red spring wheat region.

Supply Trade

Dayton, O.—The Fyr-Fyter Co. and others engaged in the manufacture of fire equipment and supplies, have been directed by the Federal Trade Commission to discontinue fixing prices at which the products shall be sold.

Schenectady, N. Y.—Grain elevator operators who are interested in more efficient power units should send for Circular 7500 just issued by General Electric Co. This circular describes in detail the company's two and three phase high-speed synchronous motors.

Checking individual advertisements on the basis of recorded results or inquiries is unsatisfactory, since in many cases the advertisement can accomplish its purpose of hastening acceptance of the product regardless of the number of inquiries received.—C. D. Crain, Jr.

Franklin, Tenn.—The sales office of J. B. Sedberry, Inc., was moved to this city Jan. 1, 1936. After this date all correspondence should be addressed to this city. No change will be made in the production plant. The "Jay Bee" mill will continue to be made by the Bossert Co., at Utica, N. Y.

The new Frazier-Lemke farm mortgage act, which was amended in a vain attempt to make it constitutional, was held unconstitutional in the U. S. District Court at Peoria, Ill., Oct. 21, as violating Art. 4 of the constitution and the 5th amendment against taking property without due process of law.

CRABBS REYNOLDS TAYLOR CO.

CRAWFORDSVILLE, IND.

GRAIN

Clover and Timothy Seeds

GET IN TOUCH WITH US

ED. F. MANGELSDORF & BRO.

Buyers and sellers of

Sweet Clover, Alfalfa, Lespedeza, Clovers, Timothy, Grasses, Fodder, Seeds, Sudan Grass, Soy Beans, Cow Peas
St. Louis, Missouri

FIELD SEEDS

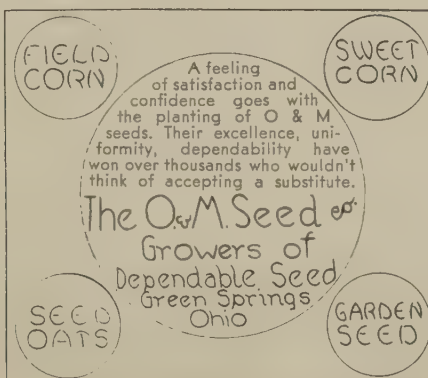
WRITE OR WIRE FOR PRICES

SIOUX CITY SEED CO.

Truck Service from the following warehouses:

Sioux City - - - - -	Iowa
Sioux Falls - - - - -	So. Dak.
Norfolk - - - - -	Nebr.
Carroll - - - - -	Iowa
Billings - - - - -	Mont.
Algona - - - - -	Iowa
Fairmont - - - - -	Minn.
Albert Lea - - - - -	Minn.

Samples Furnished On Request



Grain Carriers

Vancouver, B. C.—About 70 dock workers who have been on strike since June 4 have gone back to work, after their com'te declared the strike officially ended.

Soybean meal shippers will protest against the proposed increase from \$5.50 to \$6.50 per net ton in the westbound intercoastal rate, as it would cut them out of the Pacific Coast market.

Washington, D. C.—The Interstate Commerce Commission on Jan. 3 urged extension of its powers over water carrier rates. The Commission advocated an appellate division in its body.

Loadings of grain and grain products during the week ending Dec. 21 as reported by the Ass'n of American Railroads totaled 29,101 cars, against 24,855 cars during the like week of 1934.

St. Joseph, Mo.—The proposed rates and rules for control of truck transportation are being considered Jan. 8 by grain dealers of Nebraska, Kansas, Iowa and Missouri meeting at the Robidoux Hotel.

Portland, Ore.—A hearing on demurrage accruing during the longshoremen's strike in the summer of 1934 has been set for Jan. 24 before Examiner Griffin of the Interstate Commerce Commission at the Portland Hotel.

Washington, D. C.—Again, for the fourth time, the Interstate Commerce Commission Jan. 2 postponed the effective date of the motor carrier act until Apr. 1, as the carriers require more time to compile tariffs and schedules.

Shipments of 5-ton lots at the rate on a 50-ton B/L are possible by common carriers under a recent ruling by the Public Utilities Commission of Oregon permitting the splitting of the 50 tons into separate loadings, under the single B/L.

Pres. Walter R. Scott of the National Industrial Traffic League has appointed a com'te to participate in joint conferences with the railroad and trucking ass'ns to work out a basis of rates and classifications. L. F. Orr, St. Louis, is chairman of the com'te.

Calhoun, Ky.—Since the packets between Evansville, Ind., and Bowling Green, Ky., stopped running, a great deal of the grain and feed along the Green river valley is now moved by truck. For many years the boats on Green river had a monopoly on this business.—W.B.C.

Chicago, Ill.—The Mid-West Shippers Advisory Board will meet Jan. 9 at the Palmer House. Donald D. Conn, executive vice pres. of the Transportation Ass'n of America, will speak on "Is Private Enterprise to Endure in the United States." Officers will be elected for the ensuing year.

At the end of 1935 89 railroad companies operating 72,225 miles of line, or 28 per cent of the total operated mileage of the country, were being managed by the courts through receivers or trustees. Railroad mileage reached its maximum in 1916, when it was 254,251 miles. In 1929 it had declined to 249,433 and in 1935 to 241,986, the smallest since 1910.

Kansas City, Mo.—The Board of Trade has named a special com'te to study the matter of competition in grain merchandising offered by truck transportation and to make recommendations as to further action upon the subject to be taken by the exchange directory. The com'te is composed of F. A. Theis, chairman; E. H. Sullivan, H. L. Robinson, W. J. McNeil, R. A. Kelly.

Freight rates on hay and straw from Eastern and Western Washington points north

of Seattle were reduced back to a parity with existing Seattle to Tacoma rates, effective Dec. 31. Reductions will affect a considerable volume of hay and straw annually purchased by farmers north and east of Seattle, reductions ranging from 12 to nearly 30 per cent in some cases. The reduction was made to establish parity as between Seattle and Tacoma, which have had the same rate basis, and points north of Seattle, which heretofore have carried an additional rate.

Regulations on Trucking Grain

The Motor Vehicle Department of Missouri, V. H. Steward, Commissioner, Jefferson City, states that "Missouri is fully reciprocal as to license plates covering the operation of all classes of motor vehicles which are operated interstate. All owners or operators of motor vehicles, either local or foreign, operating into and through this state in hauling for hire, must obtain a permit from the State Public Service Commission of this city."

The Kansas Motor Vehicle Commissioner, Carl Newcomer, of Topeka, advises that "motor vehicles operated for the sole purpose of marketing farm products raised exclusively by the owner of the vehicle may haul this grain to market in Kansas from another state without purchasing Kansas license tags. Kansas operates under the reciprocity agreement. We are able to grant reciprocity to residents of other states the same as they grant to residents of Kansas operating within that state."

The Motor Vehicle Division of the Nebraska Department of Roads and Irrigation Lincoln, Neb., advises that "the reciprocal agreements between Nebraska and the other states depends entirely upon the privileges extended to Nebraska truckers in the other states. Nebraska is entirely reciprocal, granting whatever privileges are granted by other states to Nebraska, or as nearly the equivalent thereto as possible, on inter-state business. All trucks from other states doing an intrastate business are required to register in Nebraska."

The Indiana Bureau of Motor Vehicles, Indianapolis, writes under date of Jan. 3 that "Indiana has completed a reciprocal agreement with the State of Illinois which provides for full reciprocity for all trucks. Therefore, it is not necessary for an Illinois truck to pay any special fees or taxes when operating in this State. Two laws were passed by the 1935 Legislature which provide that "for hire" carriers must obtain a permit from the Indiana Public Service Commission and pay a motor vehicle weight tax to this Department. However, these two statutes do not apply to trucks transporting live stock, farm or dairy products from farm to market. These taxes also have been waived for all Illinois vehicles under the terms of our new reciprocal agreement."

The Illinois Secretary of State, Edward J. Hughes, Springfield, advises that: All trucks and commercial vehicles from Iowa operating in Illinois for hire on regular trips or

occasional trips, interstate, are not required to buy Illinois license, but must pay either flat or mileage weight tax. Those operating for hire on regular trips or occasional trips, intrastate, must buy Illinois license and pay flat or mileage weight tax. Those hauling own merchandise on regular or occasional trips, interstate, need not buy Illinois license or pay tax. Those hauling own merchandise on regular or occasional trips, intrastate, must buy Illinois license and pay flat or mileage weight tax. Both states grant full reciprocity to stock haulers operating interstate.

For the Wisconsin truck operator Illinois has full reciprocity on license plates until Feb. 1st, 1936, which may be extended for the entire year. Trucks and commercial vehicles from Wisconsin exempted from tax are as follows: All motor vehicles owned by a producer and used by him or his employee in transporting his own dairy and his own farm products to market, or transporting back supplies for his own use. A co-operative ass'n whose members consist exclusively of producers of dairy or other farm products, whether incorporated or not, when hauling for itself or its members or for members of another such co-operative shall be deemed to be a producer for the purposes of this subsection. A motor vehicle permitted under a common or contract motor carrier certificate or license shall be excluded from the exemptions of this paragraph. Where an interstate operator from Wisconsin is not operating for hire in Illinois, there are no requirements. However, if the Wisconsin operator is operating for hire, he is required to pay either flat weight or mileage weight tax.

Indiana trucks and commercial vehicles operating in Illinois for hire, on regular or occasional trips, or hauling own merchandise, interstate, Illinois license not required and no tax. For all types of operation, intrastate, Illinois license required and payment of flat or mileage weight tax.

Decisions and New Complaints

Before the Interstate Commerce Commission:
The I. C. C. has suspended to June 25, 1936, from Nov. 25, 1935, a proposal of the Chicago, Rock Island & Pacific Railway to reduce rates on grain moving from points in Iowa, Minnesota, Missouri and South Dakota to destinations in Arkansas.

No. 27029, Ryon Grain Co. v. Lehigh Valley. By Examiner A. S. Worthington. Dismissal proposed. Rates, buckwheat, points in New York to Cadillac and Quincy, Mich., and Chicago, Ill., charged on shipments moving between Oct. 9 and Dec. 5, 1934, proposed to be found not unreasonable or unduly prejudicial.

No. 25569, Alabama Grocery Co. v. A. T. & S. F. By Commission. Supplemental report on reconsideration. Findings in previous report on reconsideration, 204 I. C. C. 195, that the rates on grain and grain products from origins described therein to destinations in Alabama and Tennessee, were and are unreasonable, modified by substituting the following proportional and reshipping rates from Louisville, on traffic covered by footnote 2, in lieu of those previously prescribed: 25 cents to Leighton, Courtland, Decatur and Huntsville, Ala.; 24 cents to Athens, Ala., and Pulaski and Lawrenceburg, Tenn.; 22 cents to Columbia, Tenn., and 26 cents to Cullman and Hartselle, Ala.

No. 12158. The Commission has authorized carriers to establish proportional rates on grain and grain products, including flour, from Cincinnati, Louisville, and Evansville, New Albany, and Jeffersonville, Ind., to Tampa and Miami, Fla., without observing the long-and-short-haul part of Sec. 4, subject to the condition that, in no instance, shall the relief apply to any rate yielding less than five mills a ton-mile for the actual distance over the route of movement, that the lowest combination shall not be exceeded, and that the local rates from Cincinnati, Louisville, and Evansville shall be observed as minima on traffic originating north of the Ohio River gateways.

Portland, Ore.—Grain growers who wanted to raise peas on land taken out of wheat cultivation have won their point. AAA is notifying those having land under wheat contract that 7,000 acres of land can be used for peas in Oregon and Washington.—F.K.H.

Freight Claims

Freight claims are technical matters and should be prepared, filed and settlement negotiated by an expert. A semi-annual audit of country elevator shipping will save many dollars in a year. Charges are based on amount saved; nothing saved, nothing charged.

W. S. BRAUDT, Auditor
Box 687 Station A, Champaign, Ill.

Feedstuffs

Chicago, Ill.—The Mineral Feed Mfrs. Ass'n will hold its annual meeting Jan. 24 at the Hotel Sherman.

Minneapolis, Minn.—The northwest section of the American Ass'n of Cereal Chemists at its annual meeting Dec. 27 elected the following officers: Chairman, Dr. F. A. Colatz; vice-chairman, Dr. Alan Treloar, University of Minnesota; sec'y, C. L. Brooke; treas., R. T. Bohn.

Milwaukee, Wis.—The Central Retail Feed Ass'n will be incorporated as a non-profit organization under the laws of Wisconsin. Work of making necessary changes in constitution and by-laws preparatory to filing application at Madison is now being handled by Attorney J. J. Hurley, Milwaukee.

Milwaukee, Wis.—The 11th annual convention of the Central Retail Feed Ass'n will be held at the Schroeder hotel, Milwaukee, Monday and Tuesday, June 8 and 9. This was decided at a meeting of the executive com'ite held at the offices of the ass'n on Dec. 18. No effort will be spared to make this convention the most interesting and helpful as well as the biggest and best in the ass'n history. A special feature will be ceremonies in celebration of the completion of ten full years of service to the feed trade.—David K. Steenbergh, Sec'y.

Findings of N-W Feed Control Com'ite

The Feed Control Com'ite of the Pacific Northwest Feed Ass'n held a meeting at Seattle, Wash., recently, Chairman Weaver presiding, at the Arctic Club.

The Com'ite considered the situation arising thru the adulteration of ground barley and other ground grains, and by unanimous action recommended to the Board of Governors that action be taken to assure that all ground grains be labeled to show where and by whom they were ground, and that this be done by means of a ruling of the State Department of Agriculture.

Powdered whey as a substitute for powdered skim milk was considered. In the evidence it appeared that the only element lacking compared with dried skim milk was the protein, and where dried milk is not used principally as a source of protein it appeared that this deficiency was not material. Evidence seemed clear that the powdered dried whey was particularly desirable for mashers for the treatment of coccidiosis, and that the product is a satisfactory substitute for dried skim milk, particularly when the latter is unobtainable or high in price. The Com'ite was of the opinion that the producers of the dried whey are dependable, as is their product, and that they are not making any unjustifiable claims. The Com'ite decided that these facts should be brought to the attention of members.

A problem has arisen by reason of a ruling of the State Department of Agriculture that there be included with each sack or sale of feed containing minerals a full listing of the ingredients of the minerals, thus rendering, contrary to regulations, the simple listing of the mineral by name, even tho that mineral be itself registered with the State. By unanimous action the Com'ite recommends to the Board of Governors that action be taken to bring to the attention of the State Department of Agriculture what the Com'ite regards as a desirable change in present regulations; namely, that when a mineral is registered as a feed with the State, that then it may be referred to in the listing of ingredients of a feed in which it is used, simply by the name of the mineral as reg-

istered. The Com'ite felt that this would have the effect of making unnecessary the purchase of larger tags, or the inclusion of a second tag with the attendant expense and trouble.

Soybeans Discussed at Grinders Meet

"The Future of Soybeans" came before the sixth annual meeting of the Illinois Community Feed & Grinders Ass'n, held in the Jefferson Hotel, Peoria, Ill., Dec. 17.

HAROLD A. ABBOTT, Bloomington, Ill., was the principal speaker, claiming soybeans to be the greatest boon to agriculture and feeders that has been developed in recent years. He expects an exchange basis to be worked out whereby farmers can take raw beans to market and equitably exchange them for processed cake or meal.

Prior to 1934 the average annual production did not exceed 10,000,000 bus. Last year production jumped to 17,000,000 bus., and the first 10 months of this year showed 34,000,000 bus. In spite of this doubling of production export demand has kept up the price, and processors are unable to promise deliveries within 60 days.

Samples of soybean flour, soybean oil meal, mineralized soybean oil meal, cake, and roasted soybeans (which are eaten like peanuts) were displayed.

ALL OFFICERS were re-elected. They are: Dan S. Zehr, Normal, pres.; J. Turner Mills, McNabb, vice-pres.; D. D. DeForest, Galesburg, sec'y-treas.

Carl E. Hearn, Loda, entertained with singing and piano playing during the annual dinner.

Plans were laid to hold another meeting early in the summer.

Farmers' cash receipts from the sale of principal farm products increased in October, to \$799,040,000 compared with \$684,420,000 in October a year ago, and with \$578,026,000 in October, 1933, as reported by the U. S. D. A.

Bursting of a Hammer Mill

A No. 3 hammer mill burst while grinding corn in the Central Mills at Topeka, Kan.

The entire top of the grinder let go and was thrown over the motor, where it fell on the concrete floor and broke completely to pieces. The shaft, cylinder, bearings and top cover of the case were destroyed when it fell against the concrete floor and tangled up in the tex-rope drive. The bottom of the grinder case was not very much disturbed and the screen was not damaged at all.

The motor had a recording ammeter on it, and there is no evidence on that ammeter of any sudden variation in load, which undoubtedly there would have been if anything out of the ordinary had gone thru the mill. The motor was not damaged in any respect.

The mill was equipped with a feeder and driven by a 40-h.p. enclosed motor thru a tex-rope drive. The grinder had ball-bearings in the outboard hangers. One theory is that the high speed, the vibration of the mill and the wear on the bearings caused crystallization to occur in one of the bearing hangers, weakening the metal until it let go.

Feed Imports and Exports

Imports and exports of feedstuffs during October, and the 10 months ending with October, compared with the like periods of 1934, as reported by the Bureau of Foreign and Domestic Commerce, were as follows, in tons of 2,000 lbs.:

	IMPORTS		10 Months Ending October 31	
	1935	1934	1935	1934
Hay	233	5,772	66,882	9,034
Coconut cake	4,907	2,978	42,841	26,200
Soybean cake	1,449	5,010	51,360	20,822
Cottonseed cake	205	4,088	29,653	8,551
Linseed cake	622	1,040	8,615	6,901
All other cake	90	200	4,829	1,437
Wheat feeds	26,323	28,225	330,450	159,026
Tankage	6,454	1,604	26,936	11,617
Fish scrap	601	6,095	24,631	28,961
EXPORTS				
Hay	31	147	2,506	2,022
Cottonseed cake	2,047	22	2,766	18,953
Linseed cake	18,353	14,993	171,558	161,631
Other oil cake	232	53	8,678	3,610
Cottonseed meal	370	173	1,924	8,697
Linseed meal	361	441	11,764	8,697
Other oil meal	2,857	23	8,263	2,235
Fish meal	1,279	2,714	18,947	22,772
Mixed dairy feeds	147	202	1,846	1,368
Mixed poultry feeds	87	92	1,413	2,393
Other mixed feeds	169	215	1,453	2,114
Other feed, bran	1,299	1,430	6,183	19,045
Kafir, milo, bus.	4,412	5,252
Oyster shell	6,525	5,771	42,827	50,176

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Poultry Feeds and Feeding

Washington, D. C.—The average number of hens and pullets on Dec. 1, in farm flocks belonging to Crop Reporters, was 76.6 birds, or between 1 and 2 per cent greater than on that date in 1934, this being slightly greater than the increase over last year shown on Nov. 1.—U. S. Dept. of Agriculture.

Lafayette, Ind.—As its part of the annual Purdue Agricultural Conference to be held at Lafayette from Jan. 13 to 17 the Purdue Poultry Department is putting on a series of 16 discussions and demonstrations of interest to farm flock operators and broiler raisers. All sessions (except the disease clinic, at the Veterinary Building) will be held in the pavilion of the Purdue Poultry Department Building just west of the main campus, and are free to all who choose to avail themselves of the opportunity to "brush up" on poultry matters.

Vitamins in Breeding Poultry

By T. H. JUKES, University of California

In recent years we have come to realize more and more the high requirements of poultry for vitamins. We especially take pains to provide large amounts of vitamins in the baby chicks.

But there is another stage of the bird's life that we are apt to forget, and this is the developing embryo. The embryo must have its vitamin supply ready-made for it in the egg, and, since a hen cannot manufacture vitamins, it is necessary to provide high levels of these dietary factors in the breeding diet.

It is reasonable to suppose that, in addition, the livability and vigor of the newly-hatched chick for the first few days will be dependent on the vitamin supply which it received from the egg.

It was shown several years ago that the amounts of vitamins A and D in the breeding ration have a great influence on hatchability, and that the amounts of these vitamins in the egg are controlled by the levels fed to the hen. Similar evidence has been obtained within the past two years for vitamin G. Recent work has shown that this vitamin is a yellow pigment, and that the yellowish-green tinge in raw egg-white is due, at least in part, to this vitamin. It was found that the depth of pigmentation of the egg-white, and the hatchability of the eggs, were both controlled by the amount of vitamin G in the ration. Vitamin G is present also in the egg yolk, but its color there is concealed by other pigments.

It is known that vitamin E is necessary to normal embryo development and hatchability, but most rations usually contain an adequate supply of this factor.

There is yet another vitamin to be studied in connection with hatchability. This is the chick "anti-dermatitis" factor, formerly confused with vitamin G. A deficiency of this factor in chick diets produces slow growth, poor feathering, a scabby mouth and stuck eyelids. Dr. H. A. Hoffman has observed near Petaluma several outbreaks of this condition in flocks of very young chicks which were receiving adequate diets. This leads to a suspicion that the condition may have been due to a deficiency in the egg, which might be traced to the breeding diet.

This article has perhaps seemed to make things more complicated for the feeder. Fortunately all of these deficiencies, except that of vitamin D, can be taken care of by supplying high levels of greens, both fresh and dried, in the breeding diet. When you are saving your eggs for hatching, feed lots of greens, which supply vitamins A, E, G and the anti-dermatitis factor. Milk is another good source of G. Vitamin D is also very important, especially in dull weather, and may be supplied by including sardine or cod liver oil in the ration. Feeding the

breeding hen is just as important as feeding the chick.

Vitamin Content of Eggs

A co-operative investigation between the U. S. D. A. Bureau of Home Economics and Animal Industry was undertaken to determine what effect, if any, the addition of viosterol to the diet of laying hens might have on the vitamin A content of the eggs.

Feeding vitamin D in the form of 0.5 per cent of viosterol 160 D to laying birds receiving graded quantities of cod-liver oil had no apparent effect on the transfer of vitamin A to the egg. Eggs from pullets fed 8 per cent of cod-liver oil were several times more potent in vitamin A than eggs from pullets fed 1 and 2 per cent of cod-liver oil. It has been shown, however, that between 1 and 2 per cent of cod-liver oil in the diet is the optimum level for chickens, and when this level is exceeded impairment in egg production and hatchability is likely to occur. No significant difference was demonstrated between eggs from birds fed 1 and 2 per cent of cod-liver oil, but it was felt that if more test birds had been used a significant difference in favor of the higher level would have been demonstrated.

The vitamin A potency of eggs from birds on diets containing no vitamin A and D supplements was significantly less than the potency of eggs from groups fed cod-liver oil. The eggs from birds receiving no vitamin A and B supplements had about 20 units (Sherman-Munsell) of vitamin A per gram of egg yolk, those that received 8 per cent of cod-liver oil had about 80 units, and those that received 1 or 2 per cent cod-liver oil about 40 units.

Extra Calcium Increases Susceptibility to Coccidiosis

Rations high in calcium carbonate have increased the susceptibility of chickens to coccidiosis in experiments made during the past two years at the Wisconsin Station by C. A. Herrick, G. L. Ott, J. G. Halpin and C. E. Holmes. In the first trials young chicks were divided into three lots receiving the same basal ration (the standard ration used by the Station in feeding the chicks raised for its breeding flock). Lot 1 had no extra calcium carbonate, the ration of Lot 2 had a 3% supplement of calcium carbonate, and Lot 3 had a 6% supplement of calcium carbonate. In the second series of experiments phosphorus was added in such amounts as to make the phosphorus-lyphen-calcium balance the same for all three groups.

The results have been uniformly the same in these feeding tests; those chickens receiving added calcium carbonate have been more susceptible to infection by coccidia. This finding may help explain the serious losses often due to coccidiosis when chicks are grown indoors, as is common with many large commercial poultry plants. Chicks grown indoors require more calcium than those grown outdoors, and it is customary to feed generous amounts of calcium in the rations of chickens that do not have access to sunlight and outdoor pens.

Preliminary results indicate there is some hope of breeding strains of chickens which are considerably more resistant to coccidiosis than present strains. Mating pullets and cockerels that showed resistance to infection has resulted in second generation individuals which, when exposed to heavy infection by coccidia, had a death rate of approximately one-half that for chicks hatched from unselected strains. It will require several generations of selection and breeding, however, to determine whether this degree of resistance can be still further improved, and if the resistance is uniformly transmitted from one generation to the next.

Storing Poultry Feed

By E. B. POWELL

Some classes of livestock can seemingly handle off-grade feeds with no great damage resulting, but off-grade or deteriorated feeds can quickly take all the profit out of poultry raising. It is absolutely necessary that poultry feed be kept dry. This means a tight roof that will not leak, a floor that is always dry, and either walls that will not swell, or piling so the sacks do not touch the wall. In murky weather, feed deteriorates rapidly, even though it may not mould, unless it is stored in a well-ventilated room and is stacked so air can circulate around it. During warm weather, stored feeds should be checked frequently for weevil, and treated with a fumigant or spray to destroy weevil if they appear.

Some loss by rattage and mice-cut bags is almost sure to occur unless unusual care is taken. The loss from these vermin is far more than the inconvenience of cut bags and soiled feed than from the quantity of feed consumed by the vermin, but even that can be a considerable item. Fortunately the better practices in storing to secure good ventilation about the feed are also the better practices for discouraging rats and mice.

Unless the floor is elevated and the feed is



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By L. M. Hurd

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to be stored only a relatively short time, it is wise to pile the feed on a false floor made of two 2"x4" pieces placed on edge two feet apart, with a few 1"x4" pieces nailed across to hold them together. This gives a ladder-like support under the feed that gives a chance for air to circulate. Especially is it advisable to use such a support under the feed when the storage room has a concrete floor.

If as the feed is piled in, it is piled in tiers, one bag on top of the other, but with about four inches of space between tiers, the number of cut bags will be materially reduced and the feed will keep in better condition because of air circulation made possible.

Sorghum Grain as Poultry Feed

By LOYAL F. PAYNE, of Kansas Station

While the seed of certain grain sorghums have been used extensively for many years in poultry rations, reports of dissatisfaction are occasionally heard in the region where these grains are grown. Live-stock feeders in the grain sorghum producing states have frequently shown a preference for corn, even when it had to be shipped long distances at somewhat increased costs. Poultry raisers in these same sections have frequently discredited the value of sorghum grain in the rations, while the manufacturers of commercial poultry feeds in most parts of the country and especially in the East have shown a preference for these grains. In fact, a large percentage of sorghum grain shipped out of Kansas to eastern and western markets is used for poultry feed. This difference in attitude may be attributed in part, at least, to the methods employed in harvesting and storing grain sorghums and to the way in which they are fed.

The sorghum heads with the grain are frequently cut from the stalk and stacked in the open. Being exposed to the weather, the stack collects moisture from the rain and snow, which may eventually damage much of the grain. The moldy, musty heads of grain are later fed to the chickens along with the undamaged grain. This practice while not always fatal to the adult stock is usually disastrous to baby chicks. Field ear corn when exposed to the weather is less subject to such damage and it is fairly well cleaned when shelled and cracked. The panicle of the sorghum head, being divided into many fine branches, has a greater tendency to collect moisture and decay than the corn cob. The common farm practice of letting the chickens pick the grain from the heads gives the birds every opportunity to ingest large amounts of this decaying material.

Such grain not infrequently constitutes a large percentage of the poultry ration. When an adequate supply of vitamin A is not available to the poultry flock, "nutritional roup" (A-avitaminosis) frequently develops. Such experiences soon cause the flock owner to lose confidence in sorghum grain as a poultry feed.

The sorghum grain shipped to distant markets is handled very differently. It is threshed soon after harvesting, placed in dry granaries, elevators, or box cars and sold on a graded basis with but little if any opportunity to become damaged. The dealers who buy it utilize the grain as only one ingredient in a ration which is well balanced with other grains and mill by-products.

Agricultural income was up to over eight billions this year, tho government benefits declined. Farmers are slipping back to the quaint old custom of getting their living out of the ground.—The New Yorker.

An attack on the A.A.A. tax distribution to farmers is made in the rice processing suit by the peanut processors and candy manufacturers who have filed a brief by Attorney John E. Hughes of Chicago with the United States Supreme Court. To tax 114,425,000 persons to pay bounties to less than 12,000,000 is declared harmful to the general welfare of the 114,425,000.

Sulphur for Coccidiosis

By P. D. PETERSON, Plant Pathologist

In the Dec. 25 JOURNALS we called attention to our work with sulphur as an aid in the control of this protozoan parasite. As reported, broiler flocks, purged one day each week with a mash containing ten per cent elemental sulphur, remained conspicuously free of coccidiosis. Untreated groups were not so fortunate. These particular flocks were raised in close confinement.

Birds on range may require more frequent purging, or, as an alternative, the range may be sulphurized to good effect. Three hundred pounds of sulphur raked into the top one-inch of spaded soil in a quarter-acre enclosure, in early March, proved of apparent worth this past summer on the Maryland Eastern Shore. Pullets ranging thereon thrived and came thru from baby chick to laying stage without loss attributable to coccidiosis, worms or paralysis. In sharp contrast, cockerels from the same egg lot languished in the adjoining non-sulphurized yard and suffered high losses from "non-specific" paralysis prior to reaching broiler size.

Vitamins for Poultry Health

By D. H. HORTON

Vitamins A, D and G are the only ones which cause the poultryman any concern, the others being present in sufficient amounts in most of the common poultry rations.

A lack of vitamin A poultry ration prevents proper growth in baby chicks, curtails egg production and may cause a condition known as nutritional roup. A deficiency in vitamin D causes leg weakness in chicks as well as improper development of the other bones, particularly the breast bone. Some investigators believe that crooked breastbones are caused by a vitamin D deficiency rather than by early roosting. In hens a lack of vitamin D causes poorly shelled eggs. This is important to the egg farmer as well as the poultryman who operates incubators, because this condition means more cracked eggs either in the nests or in transit; in the case of the incubator operator, poor hatches will result.

The vitamin A requirements of poultry may be met by feeding sufficient quantities of yellow corn, fresh green feed, alfalfa or clover hay and alfalfa leaf meal. However, the difficulty may be that dark egg yolk result and the eggs may not bring a top market price. Cod liver oil will serve as a very concentrated vitamin A supplement and less corn and greens will be needed. It is rather convenient for the poultry raiser to be able to supply a rich source of vitamin D in the same product that supplies vitamin A; thus in adding cod liver oil to the ration both vitamin A and D will be provided.

In feeding cod liver oil the usual recommendation is to use one pound or one pint of cod liver oil in every 100 pounds of dry mash. This applies to laying stock, breeders, baby chicks and growing birds. The amount of oil used is large enough to take care of variations in proportions of grain and mash feed. Where a moist mash is fed or soaked oats are used it seems more convenient to mix the oil with this feed. The rate is one quart of oil each day to 1000 head of adult stock.

Sardine oil has been found to be a satisfactory source of vitamin D, and some feed manufac-

turers are using it instead of cod liver oil. There are cod liver oil concentrates on the market as well as certain fortified cod liver oils. In case these products are used the manufacturers' directions should be followed.

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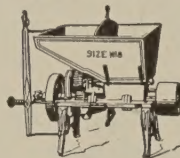


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Renewal of Feed Registrations

States requiring annual renewals of feed registrations Jan. 1, as named in the summary by the American Feed Mfrs. Ass'n are: Connecticut, Delaware, Georgia, Illinois, Iowa, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, South Carolina, Vermont, Virginia and Wisconsin.

Several of the foregoing do not require the registration of pure millfeeds, as pure bran, pure shorts, etc.—Delaware, Illinois, Maryland, Michigan, Ohio and Rhode Island. In these states, however, the exemption does not apply to any millfeeds containing screenings. In Iowa and Wisconsin the same exemption exists, but it applies in each case only to products milled within the state.

Pigs Increase 31 Per Cent

Washington, D. C.—The fall pig crop of 1935 is 31 per cent greater than that of 1934; and the number of sows to farrow in the spring of 1936 shows a prospective increase of 24 per cent.

The number of pigs saved in the fall of 1935 (June to Dec. 1) for the United States is estimated at 20,272,000 head, an increase of 4,750,000 head or 30.6 per cent over the number saved in the fall of 1934, but a decrease of 27 per cent from the average number for the five years 1929-33.

The number of sows farrowed in the fall season of 1935 is estimated at 3,344,000 head, an increase of 25.9 per cent over the number farrowed in the fall of 1934. In June, 1935, the probable number to farrow in the fall of 1935 was estimated at 3,175,000 head. The increase in actual farrowings over those indicated by the June pig crop report was largely in the states of the western corn belt.

Diversion of Acreage from Oats to Barley Urged

The Iowa State College has found that during the past 10 years the average acre of barley in the state has produced a half more feed than the average acre of oats. County assessors' records show that oats have given an average yield of 1,007 pounds as compared with 1,238 for barley—a 23 per cent advantage for barley as the two grains are stored in the bin.

Oats and barley are equal in digestible protein, both having about 9 per cent. But in total digestible nutrients barley has 76 per cent while oats have only 61 per cent. On this basis the average acre of Iowa oats produces 614 pounds as against 914 for barley—an advantage of 53 per cent in total digestible material for barley.

Feed Prices

The following table shows the closing bid price each week for April futures of standard bran and gray shorts, spot cottonseed meal, soybean oil meal and alfalfa meal in dollars per ton, and No. 2 yellow corn and No. 2 yellow soybeans, in cents per bushel.

Minneapolis Spot				Kansas City			
	Bran	Midds		Bran	Shorts		
Dec. 7	16.25	16.25		15.35	20.25		
Dec. 14	16.50	16.50		15.75	20.75		
Dec. 21	16.00	16.50		15.25	20.00		
Dec. 28	16.00	16.50		15.50	19.90		
Jan. 4	16.25	16.50		15.25	19.75		
St. Louis				Chicago, Soy			
	Bran	Shorts		Beans	Meal		
Dec. 7	17.45	21.15		83	24.90		
Dec. 14	17.90	21.75		87	24.90		
Dec. 21	17.15	20.75		91	25.40		
Dec. 28	17.50	20.65		93	25.90		
Jan. 4	17.40	20.75		93	26.40		
Cottonseed Meal				Denver			
	Ft. Worth	Memphis	Alfalfa	Corn			
Dec. 7	25.50	22.50	28.00	63			
Dec. 14	25.50	22.00	21.00	60			
Dec. 21	25.50	21.50	21.00	60			
Dec. 28	25.50	22.00	21.00	60			
Jan. 4	25.50	22.00	21.00	62			

The percentage of hull in oats is about double that for barley—calculated at 30 per cent for oats and 15 per cent for barley. This means that an average acre of oats produces 705 pounds of hulled kernels while barley produces 49 per cent more or 1,052 pounds.

Soybeans for Pigs

Soybeans alone are never a satisfactory source of protein to balance the farm grains for young, growing and fattening pigs when fed in the drylot.

Soybeans are rather unpalatable and the pigs are likely to refuse to eat enough of them to furnish sufficient protein for maximum gains and usually the pigs gain poorly thruout the feeding period.

Growing and fattening pigs, full-fed from weaning time to a desirable weight on a ration of corn and soybeans in the drylot, usually will produce soft or oily pork, the circular warns.

The degree of softness and oiliness depends upon the length of the feeding period, the amount of soybeans consumed, the weight of the pigs when started on the soybeans and the rate of gain.

Better results may be expected, explains the circular, of other protein feeds such as milk products, meat meal tankage, linseed oilmeal or alfalfa meal used with the soybeans as the supplement to the grain. This mixture of proteins promotes faster gains and results in lower feed requirements per unit of gain. By thus reducing the proportion of soybeans in the ration and by increasing the gains made by the hogs, firmer carcasses may be expected.—Iowa State College.

Let Local Elevator Man Do the Feed Mixing

By D. H. HORTON, head of Department of Poultry Husbandry, California.

The practice of mixing feed at home is on the decrease and many poultrymen, who in the past have spent hours with a scoop shovel are using that time to better advantage.

Feed mixers have been installed in the stores or mills of many local feed dealers who now do custom mixing. The poultryman gives the dealer the formula or list of ingredients which he wishes to have mixed and a thoro job is done in a few minutes. The standard price for custom mixing seems to be \$1.00 per ton. Feed mixers are expensive and are not an economical piece of equipment except for a very large poultry farm. Furthermore it does not seem like good management to buy feed in large quantities. It is the practice of the Contest to buy one month's supply at a time. This is done in order to be sure that the birds have reasonably fresh feed at all times.

Home-mixing is at best a dusty, disagreeable chore and when one can get the job done mechanically at the dealer's it would seem wise to do so. The time saved in this way can usually be spent in some other kind of work on the farm. Furthermore, it no longer becomes necessary to have eight or ten piles or stacks of ingredients in the feed room. Then again one will not find that he is out of meat scrap while he may have plenty of corn meal on hand. Another advantage of mechanical mixing is the thoroughness of the job; the mechanical device makes a uniform mix which three turnings with a scoop shovel cannot do.

Sometimes a poultry raiser feels that the dealer may not follow his formula correctly or that he may use an inferior grade of some feed stuff in a mix. There is no reason why the buyer should not see the ingredients which he purchases and make a check for himself. In the case of poultry feedstuffs, except meals made from grains, the guaranteed analysis must appear on the sack. The dealer who refuses to allow customers the privilege of seeing their own feed mixed may be regarded with suspicion.

Some poultrymen prefer to use the open formula feeds which may be purchased thru

co-operative organizations. Many farmers have used these feeds with satisfaction and the tonnage sold has increased from year to year. These feeds usually sell at a lower price than one can buy ingredients and mix at home.

There are many commercial feeds sold and most of them are of satisfactory quality. A list of ingredients used is printed on the sack, but the amounts of each feed are not given. Anyone may know what is used in the mixture but not what formula is used. Statements from feed manufacturers indicate that the use of commercial mixtures is also on the increase.

It would seem to be sound procedure to have feed custom mixed, to use an open formula line of feeds or to buy commercial feeds. Home mixing should be practiced only as a last resort.

Effect of Alfalfa on Milk Flavor

At the Oklahoma Agricultural Exp. Sta., it was found that alfalfa hay fed less than four hours before milking has a pronounced effect on milk flavor. This effect is observed even when the interval between feeding and milking is only one-half hour. The two hour interval causes the most serious flavor in milk.

If the hay is fed as long as four hours before milking the flavor is entirely eliminated with some cows. With other cows it is so reduced as to be scarcely discernible.

The same precautions should be used in feeding alfalfa hay as are recommended for such feeds as silage; it should be fed after milking or at a sufficient interval before so that its possible effect on the milk flavor will be eliminated.

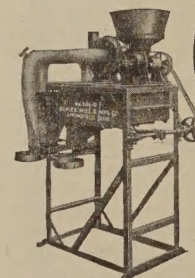
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Scientific Basis of a First-Class Mixed Feed

By G. S. FRAPS, State Chemist; Chief, Division of Chemistry, Texas Agricultural Experiment Station.

The largest amount of food material required by an animal is for use as what may be termed a fuel. That is to say, in a sense, it is burned to produce heat or to produce motion or energy.

An animal requires material with which to build flesh, repair waste, make blood and form animal products containing nitrogen. The substance which furnishes this is known as protein.

Minerals—Animals require certain minerals, notably, lime or calcium and phosphoric acid or phosphorus. Phosphoric acid is contained in appreciable amounts in wheat bran, cottonseed meal, and a number of other feeds so that many mixed feeds contain enough phosphorus. With some dairy feeds it is frequently desirable to add some lime in the form of limestone, or oyster shell in order to balance the phosphoric acid especially if non-legume roughages are to be used. For chicken feed bone meal or some other phosphate as well as oyster shell or ground limestone is frequently required in order to produce the best results. Calcium or phosphorus and salt are the only minerals which need to be added to mixed feed for use in Texas. The quantities of minerals which should be added depend upon the kind of animal being fed, the object of feeding, what other feed is to be fed with the mixed feed and other conditions. We are investigating this subject and hope to make definite recommendations for the amounts of these minerals needed in the various kinds of mixed feeds.

Animals need small amounts of organic substances known as vitamins. The importance of vitamins in animal feeding is just being recognized and the quantities needed by animals are being ascertained. There are several of these vitamins. Vitamin A, vitamin B, vitamin C, vitamin D, vitamin E are now definitely recognized and it appears possible that a number of other vitamins are present in feeds. Some vitamins are present in all feeds. Since all feeds carry vitamins, no one feed can be correctly termed a vitamin feed.

Vitamin A is being intensively studied by the Texas Experiment Station. Yellow coloring materials known as alpha carotene, beta carotene, gamma carotene and cryptoxanthin can be used by the animal as vitamin A, or be transferred into vitamin A. The amounts of vitamin A or carotene required by animals on maintenance is small but very important. Growing animals require larger amounts, while producing animals require still higher amounts. Both vitamin A and carotene are present in the yolk of eggs and in milk, and the amount present depends upon the amount stored by the animal and the amount in the feed. The Division of Dairy Husbandry of the Texas Agricultural Experiment Station is investigating the vitamin A requirements of dairy cattle; the Division of Poultry Husbandry is investigating the vitamin A requirements of hens and chickens. The Division of Range Animal Husbandry is investigating the requirements of fattening beef cattle and the Division of Swine Husbandry is studying the relations of vitamins to the production of normal pigs. The Division of Chemistry is studying the vitamin A present in commercial feeds.

Commercial dairy feeds as a rule do not contain enough vitamin A to satisfy the needs of a dairy cow for milk production. Unless cows fed these feeds have access to pasture

occasionally they are liable to suffer from a deficiency of vitamin A. Some commercial chick feeds probably contain enough vitamin A for growing chicks but many of them appear to be deficient. Mixed feeds intended for laying, as a rule, do not contain enough vitamin A or carotene for good health and production. The quantity required is approximately 300 rat units per 100 gram for total feed, for good health and the production of fertile eggs. If eggs of high potency in vitamin A are required, the food should contain 700 rat units of vitamin A in 100 grams of total feed. Unless the hens fed ordinary commercial feed have access to green grass they suffer in health and produce eggs low in vitamin A and fail to lay as many eggs as they should otherwise. More definite information regarding the quantities of vitamin A which should be present in commercial mixed feeds will be presented in Bulletins of the Texas Agricultural Experiment Station. Vitamin A is best supplied to mixed feeds by means of alfalfa meal or alfalfa leaf meal, or similar green feeds.

Vitamin D may be termed the sunshine vitamin, since sunshine is equivalent to vitamin D. Since the domestic animals in Texas almost invariably have plenty of sunshine, vitamin D appears to be of importance only in the case of mixed feeds for chicks grown in battery brooders, or mixed feed for laying hens kept in batteries protected from sunlight. The quantity of vitamin D required by chickens under such conditions is being studied by the Division of Poultry Husbandry and seems to vary with the minerals present in the feed. Approximately 25 international units 100 per gram of feed seems to be sufficient.

Vitamin G appears to be present abundantly in dried skim milk, dried buttermilk, and dried whey as well as other feeds. These materials are used to some extent in poultry feeds to supply additional amounts of vitamin G. Vitamin E which is the reproductive vitamin, may not be present in sufficient amounts in some feeds, but this is a matter which requires further investigation. It is present in a large number of feeds, being extensively distributed.

Low-grade materials, such as rice hulls, peanut shells, oat hulls, and wheat straw, are sometimes used in mixed feeds. These materials have low feeding values and have a high cost per unit of feeding value. Rice hulls and peanut hulls have practically no feeding value whatever. The feeding value of the others would be similar to that of hays or fodders and even lower.

The use of these low-grade materials in low-grade mixed feeds may be justified in time of drouth when there is deficiency of material with which to feed animals. Under such conditions they serve as a substitute for hay or fodder. In ordinary times the use of these low-grade materials in a mixed feed cheapens the feed and increases the cost of the feed per unit of feeding value. After the freight and handling charges have been paid on feeding materials of low value the cost per unit of feeding value is usually too high to justify their inclusion in a mixed feed. Their use decreases the ability of the mixed feed manufacturer to furnish high feeding value at low cost.

A first class mixed feed should therefore not include low-grade materials or hays and

fodders of any kind, excepting alfalfa leaf meal or some similar green feed for the purpose of supplying carotene for vitamin A potency. Under exceptional conditions it may be desirable to include both the roughage and the concentrate in a ration. As a rule it is more profitable for the feeder to purchase his concentrates and to grow his roughage or to purchase it separately from local sources.

Every ingredient of a first-class mixed feed should be present in quantities sufficient to be of value to the animal. Feeds used in insufficient amounts may sometimes mislead the purchaser and cause him to think the feed is better than it really is, but the digestive system of a cow or a hen is absolutely impervious to advertising propaganda. There are no mysteries in the combining of mixed feeds, no scientific secrets which are known by some manufacturers and not known by the agricultural experiment stations.

You will notice that I have made no mention of iron, copper, iodine and a number of other materials which have from time to time been mentioned in the press or in advertisements. Iron and copper are necessary for animals, but ordinarily sufficient amounts are present in natural feeds and at present there appears to be no need whatever to add them to the mixed feeds sold in Texas. Drugs should not be added to mixed feeds. If an animal is sick it should have the proper medicine or treatment and the use of medicated mixed feeds would merely give a false sense of security which would do more harm than good.

A first-class mixed feed should, therefore, contain first-class ingredients in quantities sufficient to be of value to the animals, a proper balance of protein to productive energy, enough lime and phosphoric acid, and a sufficient amount of vitamin A. It should not contain any low grade ingredients, such as rice hulls, peanut shells or oat hulls. A first-class mixed feed can be made by the use of ordinary feeds properly selected, sometimes with the addition of limestone or oyster shell and bone meal or some other phosphate, possibly salt in not too large quantities and sometimes alfalfa meal or some other dried green feed as a carrier of vitamin A. Feed for chickens which do not have access to sunlight may need a fish oil or fish oil concentrate to supply vitamin D. These ingredients should be combined in the proportions necessary for the animal to be fed, conditions of feeding and the nature of the other feeds to be fed. In restricted areas, so far not found in Texas, additions of small amounts of copper sulphate or iron sulphate or iodine may be desirable or necessary. At the present time none of these seem to be needed in a first-class feed for use in Texas.

Hay Movement in December

Receipts and shipments of hay at the various markets during December, compared with December, 1934, in tons, were:

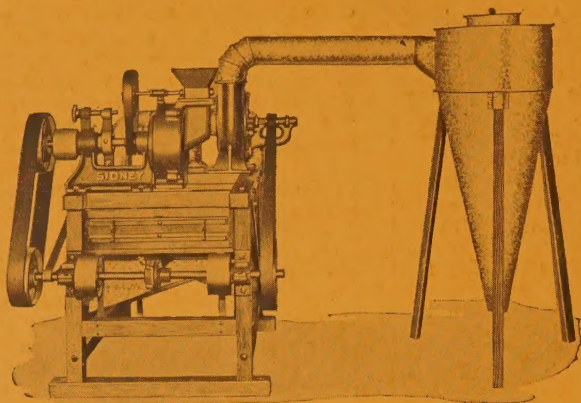
	Receipts		Shipments	
	1935	1934	1935	1934
Baltimore	26	24	.....	.....
Boston	539	759	.....	.....
Ft. Worth	121	792	.....	.....
Kansas City	4,776	9,012	984	4,296
Minneapolis	108	3,790	.....	.....
Seattle	154	77	.....	.....

Feed Movement in December

Receipts and shipments of feedstuffs at the various markets during December, compared with December, 1934, in tons, were:

	Receipts		Shipments	
	1935	1934	1935	1934
*Baltimore	3,424	3,630	.....	.....
*†Boston	600	702	.....	20
*Chicago	9,017	6,587	28,909	25,537
†Kansas City	3,200	1,900	22,206	20,025
*Milwaukee	1,230	235	7,925	6,555
*Minneapolis	3,261	1,203	30,430	25,495
*Millfeed, †Bran and shorts.	*†Millfeed, bran and shorts.			

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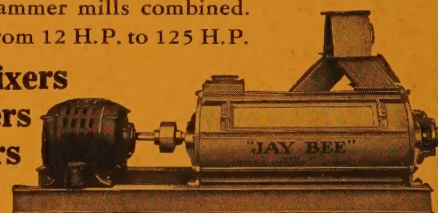
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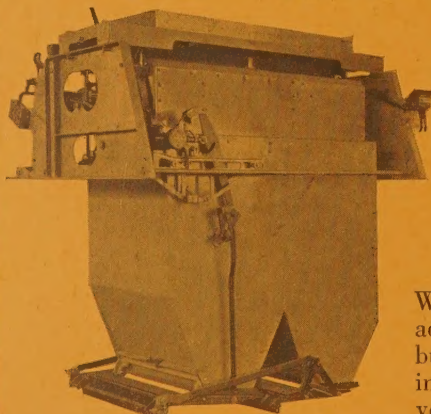
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